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ABSTRACT

A study sought to determine current practices in word processing installations located in selected organizations throughout the United States. A related problem was to ascertain anticipated future developments in word processing to provide information for educational institutions preparing workers for the business office. Six interview instruments were constructed to solicit word processing information from six different practitioner groups: word processing supervisors/managers, word processing operators/correspondence secretaries, administrative support supervisors/managers, administrative support secretaries, principals/originators, and top/middle management decision makers. A questionnaire was also submitted to a group of industry experts (consultants, editors, vendors) for their write-in responses about the future. Information requested of practitioners included educational background, general job responsibilities and duties, time spent on responsibilities, training, training needs, career path, initial and inservice training, and major weaknesses of workers. (Summaries of findings and discussions for each group studied are found in chapter 2.) Industry experts agree that in the next five to ten years (1) employment opportunities will continue to grow, (2) there will be greater interaction between word and data processing, and (3) a stronger emphasis will be placed on effectiveness rather than efficiency. (YLB)

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Summary Report of National Study of Word Processing Installations in Selected Business Organizations

A Summary of a Report on the
National Word Processing Research Study
of Delta Pi Epsilon

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Foreword

Delta Pi Epsilon is pleased to have sponsored this national study on word processing and to make the results of the study available to educators, business people, and others who are interested in the rapidly developing and increasingly significant field of word processing.

In its formal stages, the study was supervised and coordinated by Dr. Jolene Scriven, Northern Illinois University, Chairperson; Dr. Kay Wagoner, Ball State University; Dr. Jeanne Holley, University of Mississippi; and Dr. Richard Brown, Northern Illinois University. The fraternity is indebted to the members of this committee—and to others who worked with them—for the skillful leadership and hard work which led to the completion of this demanding and far-reaching project.

Special note should be made of the financial and administrative assistance given to this project by the International Word Processing Association. The support and participation of many of IWPA's members helped ensure the successful completion of the study.

This noteworthy project continues Delta Pi Epsilon's traditional commitment to scholarly research and professional publication. As a research project of national scope, it has involved hundreds of business people and business educators. Over 90 percent of DPE'S 85 chapters participated in gathering data for this extensive research study. The result of these collective efforts is represented by this publication—a document which DPE believes makes an important contribution in the field of word processing to both education and business.

R. DerMont Bell
National President

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Preface and Acknowledgments

This study is the outgrowth of four years of effort on the part of many persons in Delta Pi Epsilon (DPE) and in professional word processing associations. While ultimately the study was put together by a committee of four persons, the early development needs to be outlined in order to provide perspective for the study.

Preface

The idea for a national word processing study was formulated by the Research Projects Committee of DPE on March 20, 1976, while planning for the 1976 National Research Conference. The decision was made to have a proposal-writing session on the topic of word processing with Dr. Leona Gallion of Indiana State University as chairman of the session. Subsequently, Dr. Jeanne Holley of the University of Mississippi and Dr. Richard Kelly of Ball State University agreed to participate as committee members for that session. That Committee, working with other interested members of DPE at the Research Conference, developed a preproposal for a research project in word processing.

The Research Projects Committee then authorized a committee consisting of Dr. Gallion, Dr. Holley, and Dr. Richard Brown of Northern Illinois University, as liaison member, to meet and refine the preproposal so that it could be used in seeking federal funding for a national research project. This was done at a meeting on March 19, 1977, with the assistance of Dr. Mildred Hillestad, University of Northern Iowa, as a consultant.

As the project was still unfunded at the beginning of 1978, the National Executive Board of DPE directed the Research Projects Committee to have the proposal revised so that it would be suitable for a national research project with broad chapter participation. The Research Projects Committee appointed Dr. Jolene Scriven of Northern Illinois University as chairperson of the study committee which also included Dr. Holley, Dr. Kay Wagoner of Ball State University, and Dr. Brown. This committee, with the assistance of many individuals and organizations, is responsible for the final report.

Acknowledgments

The committee particularly appreciates the efforts of the many members and chapters of DPE and the support of the International Word Processing Association (IWP). In addition to DPE's providing the guidelines for the study and funds for much of the work, over 90 percent of the chapters of DPE participated in the study through conducting interviews to gather the data. The IWP also provided funding for the project, did some of the mailing, and encouraged their members to participate in the study.

The committee appreciates the efforts of other word processing associations which also encouraged their members to participate in the study, made mailing lists available, and assisted with mailings. These associations include: American Word Processing Association, Southwestern Ohio Word Processing/Administrative Support Group, Word Processing Association of Arkansas, Word Processing Association of Minnesota, Word Processing Association of Northwestern Ohio, Word Processing Association of Southwestern Missouri, and Word Processing Society, Inc.

The committee is especially grateful for the contributions made by the three universities represented by the researchers. The department chairmen and deans of the colleges of business at Northern Illinois University, Ball State University, and the University of Mississippi have been cooperative with the project and generous in the support services made available to the researchers.

Table of Contents

Page

Letter from Delta Pi Epsilon National President ..... Inside Front Cover

Preface and Acknowledgments 1
- Preface 1
- Acknowledgments 1

Chapter 1 The Problem and Procedures 3
- Introduction 3
- The Problem 3
- Summary of Procedures 3
- Summary of Review of Related Literature 4

Chapter 2 Summary of Findings with Discussion 5
- Word Processing Supervisor/Managers 5
  - Summary of Most Frequent Responses 5
  - Discussion 7
- Word Processing Operators/Correspondence Secretaries 10
  - Summary of Most Frequent Responses 10
  - Discussion 11
- Administrative Support Supervisors/Managers 14
  - Summary of Most Frequent Responses 14
  - Discussion 16
- Administrative Support Secretaries 19
  - Summary of Most Frequent Responses 19
  - Discussion 21
  - Entry-Level Requirements of Administrative Support Secretaries 24
- Principals/Originators 26
  - Summary of Most Frequent Responses 26
  - Discussion 27
- Top/Middle Management Decision Makers 28
  - Summary of Most Frequent Responses 28
  - Discussion 29
- Word Processing Industry Experts 30
  - Summary of Responses 31
  - Discussion 31
  - Word Processing/Data Processing 31
  - Word Processing Growth 32
  - Employee Requirements 32
  - Role of Education 33
  - Productivity 33

Chapter 3 Summary, Conclusions, and Recommendations 35
- Summary 35
- Conclusions 37
- Recommendations 39

References Cited 41

Chapter 1
The Problem and Procedures

Introduction

During the last two decades, business firms of every size throughout the nation have experienced an unprecedented increase in the amount of paperwork generated to handle communication needs. In an effort to augment the office capacity for handling the paperwork explosion, while improving the quality and effectiveness of communications, a new concept called "word processing" has been developing.

First introduced in the 1960's, the term refers to a systems approach to handling the communications needs of business which generally involves: (1) a change in the method of personnel utilization providing more work specialization and improved career opportunities for secretaries while freeing managers so that they have more time to plan, organize, and coordinate; (2) the use of text-editing typewriters with magnetic recording features; and (3) the use of machine dictation equipment for recording of ideas as they originate.

The Problem

The problem of the study was to determine current practices in word processing installations located in selected organizations throughout the United States. A related problem was to ascertain anticipated future developments in word processing to provide information for educational institutions preparing workers for the business office.

Summary of Procedures

The cooperation and support of IWP was secured in August, 1978, when the Executive Board of IWP agreed to provide both financial support and home office cooperation for the project. The research design was established by the committee in September, 1978. Further refinement of the design was completed at the National Research Conference in November, 1978.

Needed information was to be elicited from organizations which had made commitments to word processing and had established word processing installations. This target population, while not necessarily representative of all organizations, appeared to be the group with the greatest knowledge about word processing. The information was to be secured from these organizations through the interview approach using a structured interview form.

Since the study was a national research project of Delta Pi Epsilon, members of Delta Pi Epsilon chapters across the country were solicited to do the interviewing. In November, 1978, a letter was sent to Delta Pi Epsilon chapters explaining the study and asking them to participate by agreeing to provide interviewers for the project.

Meanwhile, a sample was drawn from the membership list of IWP, the largest professional word processing organization. A random sample of 20 percent of the mailing list was drawn (1,200 members) with the estimate that about 60 percent of these would probably represent organizations with word processing installations. The other 40 percent were likely to be consultants, educators, or vendors. IWP sent these members a form asking them to indicate if they would participate in the study and requesting responses to questions dealing with region, nature of organizations, organizational patterns, and number of office employees. A follow-up letter was also sent by IWP.

A total of 548 responses was received, with 333 representing organizations with word processing installations which agreed to participate in the study. Stability checks indicated that there was no significant difference between the respondents to the first and second mailings and between those organizations which indicated they would participate in the study and those which said they would not. As a result, the respondents were believed to be representative of the total population of IWP members employed by organizations having word processing installations.

An analysis of the geographical location of respondents, however, indicated that there were some geographical areas not fully represented in the sample. As a result, other regional professional word processing associations were contacted in order to build a more representative sample of the population. These associations included American Word Processing Associa-

tion, Southwestern Ohio Word Processing/Administrative Support Group, Word Processing Association of Arkansas, Word Processing Association of Minnesota, Word Processing Association of Northwestern Ohio, Word Processing Association of Southwestern Missouri, and the Word Processing Society, Inc. A total of 407 organizations (including the 333 from IWP) were included in the sample agreeing to participate in the study.

Survey instruments were developed for the following groups of persons in each organization agreeing to participate: top/middle management decision makers, principals/originators, word processing supervisors/managers, word processing operators/correspondence secretaries, administrative support supervisors/managers, and administrative support secretaries. The survey instruments were based on a review of professional literature and validated by a group of 25 members of IWP who worked for organizations with word processing installations. The instruments were field-tested with persons holding positions similar to those who would complete the instruments later. After further refinement, the instruments were judged to have sufficient reliability for the study.

Each of the Delta Pi Epsilon chapters which had agreed to participate in the study (over 90 percent) was asked to send one representative to a training session for interviewers held in Chicago on April 11, 1979. Interview guides were prepared for each survey instrument as well as general written instructions on contacting the organizations. For those chapters unable to have a representative attend the meeting, the guidelines and survey instruments were mailed to the chapters.

The interviews were held between April and August, 1979, and the data were received from 341 organizations (336 usable responses) by September, 1979. Either because of changes in personnel in the organizations or inability of Delta Pi Epsilon members to conduct the interviews, responses were not included from 71 organizations originally agreeing to participate. All responses were reviewed and data entered by a trained team of workers to assure consistent handling of the responses. Every tenth interview form was checked for coding and entry accuracy. Data were presented primarily in terms of total numbers and percentages of respondents with no statistical analysis of the data.

Summary of Review of Related Literature

An extensive review was made of the literature pertaining to word processing. Included in the review were articles published in business periodicals and professional journals, reports published by consultant firms, and research studies.

The review is presented in two sections. The first section reports on the growth and development of word processing, including the past, the present, and future projections. Emphasis is placed on the current status of word processing.

The second section presents relevant findings from research studies which relate closely to the purposes of this project. The studies are grouped in four categories: employment qualifications, tasks performed, job satisfaction, and curricular implications.

Chapter 2
Summary of Findings with Discussion

This chapter presents the summaries of the findings and discussions for each of the groups studied—Word Processing Supervisors/Managers, Word Processing Operators/Correspondence Secretaries, Administrative Support Supervisors/Managers, Administrative Support Secretaries, Principals/Originators, Top/Middle Management Decision Makers. In addition to these findings, a section on the future of word processing is included.

Word Processing Supervisor/Managers

Definition as used in survey instrument: The Word Processing Supervisor/Manager is responsible for supervising the word processing document-production function. In the case of a decentralized system, this person often coordinates the work among the various centers or work stations in order to achieve the most effective results.

Summary of Most Frequent Responses

The data in Chapter 3 of the original report represent the personal information supplied in the responses of the 308 Word Processing Supervisor/Managers and their opinions concerning job-related topics. Only the most frequently chosen response for each question will be recapitulated here.

1. The region with the largest representation of Word Processing Supervisors/Managers in this study was North-Central, with 39 percent indicating this section of the United States.
2. The Finance, Insurance, or Real Estate industry was represented by a greater number of the respondents (21 percent) than any other single type of employing organization when classified by industry.
3. Three-fifths of the Word Processing Supervisors/Managers worked in organizations employing more than 100 office employees.
4. A large majority of the respondents were female (87 percent).
5. Sixty-two percent of the Word Processing Supervisors/Managers were less than 40 years of age, with over one-third (36 percent) indicating they were in the 30-39 age range.
6. Nearly two-thirds of the Word Processing Supervisors/Managers had previously held jobs as secretaries (64 percent).
7. The most prevalent job title of the respondents was Supervisor, Word Processing (46 percent).
8. Forty-two percent of the respondents had been employed in their present position from one to three years.
9. Most of the organizations represented by the Word Processing Supervisors/Managers had adopted a centralized pattern in the implementation of word processing (62 percent).
10. Of those respondents indicating a decentralized organizational pattern for word processing within their organizations, the satellite pattern had been most frequently adopted (37 percent) followed by the establishment of a mini-center or cluster (31 percent).
11. A large majority of the word processing installations were structured to handle unusual or nonstandardized custom typing (95 percent).
12. Sixty percent of the respondents said that the responsibility for word processing document production budgeting and reporting was at the departmental level, and the most frequently named department was the Word Processing Center (9 percent).
13. Typing/keyboarding was the general area of the responsibility most often performed by word processing personnel, according to 89 percent of the respondents.
14. Most of the Word Processing Supervisors/Managers (94 percent) indicated that in their organizations word processing document production personnel were used as "back-up" administrative support secretaries.
15. Nearly 46 percent of the respondents estimated that in their organizations from 100 to more than 250 principals used word processing services.
16. The greatest majority of word processing personnel were employed at the Word Processing Operator level (65 percent) and were predominantly female (98 percent).
17. A majority of the Word Processing Supervisors/Managers indicated that the Word Processing Operators/Correspondence Secretaries in their organizations provided services to any

principals requiring word processing services and generally followed a first-come, first-served policy (78 percent).

18. The kinds of typing most frequently produced on word processing equipment were correspondence (90 percent) and narrative/manuscript (89 percent).

19. The Word Processing Supervisors/Managers identified the kind of input most frequently processed by Operators as handwritten (93 percent).

20. Nearly 39 percent of the respondents supervised from one to five employees, while 32 percent supervised more than ten employees.

21. The planning responsibility most often cited by the responding Word Processing Supervisors/Managers was determining the needs of the word processing center(s) (81 percent).

22. Creating an effective work environment, both physical and psychological, was the organizing responsibility most frequently mentioned by the respondents (86 percent).

23. Two job responsibilities classified as controlling responsibilities received nearly equal mention. The responsibility of establishing productivity standards and the responsibility of establishing a work measurement program were cited by 70 percent of the Word Processing Supervisors/Managers.

24. Eighty-nine percent of the respondents indicated that the most frequently performed directing and coordinating responsibility was supervising and motivating personnel.

25. The respondents believed that they spent more of their working time on directing and coordinating activities (33 percent of total time) than on any of the other management function areas.

26. Over two-thirds of the respondents operated word processing equipment at least part of the time (68 percent).

27. Over half of the respondents received some type of management training from their organizations to help them develop management skills prior to or at the same time they assumed a supervisory position in word processing (53 percent).

28. The most frequently cited type of management training received by the respondents was in management and/or supervisory course(s) provided by equipment vendors (23 percent).

29. A majority of the Word Processing Supervisors/Managers perceived a need for on-going training (72 percent).

30. The respondents (49 percent) most frequently suggested that management information systems (including interfacing of word processing and data processing) be covered in on-going training.

31. Nearly half of the Word Processing Supervisors/Managers (49 percent) indicated that a "built-in" career progression existed or their organizations were working on a plan.

32. Thirty percent of the Word Processing Supervisors/Managers indicated that Word Processing Operator was the title of those persons employed to use word processing equipment.

33. According to 40 percent of the Word Processing Supervisors/Managers, the most prevalent source of initial training on magnetic media for Word Processing Operators was from the employing organization, while nearly as many received their initial training from equipment vendors.

34. Almost half (49 percent) of the respondents indicated that the type of in-service training given newly employed Word Processing Operators was by attending equipment vendor school(s).

35. A majority (72 percent) of the organizations represented by the surveyed Word Processing Supervisors/Managers administered employment tests to potential Word Processing Operators.

36. Three-fifths of the respondents indicated that a straight-copy timed writing typing test was given to potential Word Processing Operators. (This represents 85 percent of those responding to Number 35 above).

37. Nearly three-fourths of the respondents said their organizations required a minimum typing speed for potential entry-level word processing employees (74 percent).

38. Nearly one-third of the Word Processing Supervisors/Managers (32 percent) reported that 50 words a minute was the minimum typing speed required for potential Word Processing Operators in their organization.

39. Type of previous work experience was identified by the respondents as being the most important employment factor considered in hiring Word Processing Operators (77 percent).

40. The major recruiting source of word processing personnel as identified by the Word Processing Supervisors/Managers was newspaper and other media advertising (55 percent).

41. Four-fifths of the respondents revealed that a work measurement system was used in their organizations (81 percent).

42. The most frequently cited work measurement system used was the number of lines typed (47 percent).

43. The most often cited use of the work measurement system was in the evaluation of total word processing production (82 percent).

44. In 90 percent of the organizations represented by the Word Processing Supervisors/Managers, the Operator was responsible for correct formatting.

45. Thirty percent of the respondents said that the responsibility for proofreading was a combination of two methods—specific person(s) assigned to proofread most work or the Word Processing Operator proofread own work.

46. Prior training in typewriting was deemed as very important by 89 percent of the respondents.

47. Sixty-one percent of the respondents thought that the use of the typewriter should be learned in school.

48. The length of the learning curve for newly employed Word Processing Operators was identified as being from three to four months (28 percent).

49. Four-fifths of the Word Processing Supervisors/Managers believed that the entry-level Word Processing Operators in their organizations had major weaknesses (81 percent).

50. The most frequently cited major weakness of entry-level Word Processing Operators was classified as inadequate grammar skills (55 percent).

51. Over four-fifths of the Word Processing Supervisors/Managers have made recommendations to upper management about obtaining new word processing equipment (81 percent).

52. Nearly two-fifths of the Supervisors/Managers suggested that an area of additional training needed by entry-level Operators was on word processing equipment (39 percent).

Discussion

Word processing has found the greatest number of users and strongest advocates in the service-oriented industries and especially in paper-intensive organizations such as insurance, banks, and administrative government agencies. The responses to this survey, which had the largest representation from the finance, insurance, real estate, and the government sectors, appear to provide information similar to that found in other studies.

Profile of Word Processing Supervisors/Managers. When viewed as a whole, the responses of the supervisors and managers provide a profile of the personnel now performing in an administrative capacity as well as provide a clear picture of the functions of today's word processing supervisors and managers. Additional insight is provided into the organizational structure and operating policies, some of which may become standard practice (similar results in a number of studies provide a basis for this belief).

The word processing administrator is most likely female, although the number of males has been increasing somewhat over the years. These individuals are relatively young, with 62 percent under the age of 40 and 36 percent indicating that they were between 30 and 39 years of age. Most of them (64 percent) have previously held jobs as secretaries, and many of them (59 percent) also have had some supervisory experience. Apparently, recognition of the need for supervisory experience is increasing, because the 1979 Deutsch, et al., survey indicated that 36 percent of their respondents also had some type of managerial or supervisory experience before assuming their current positions.

In this study, as well as in studies previously cited, the title most prevalent for those responsible for supervising word processing is that of Word Processing Supervisor, while the span of responsibility for these supervisors varies greatly. A considerable number of them are supervising from one to five employees; on the other hand, 32 percent of them are supervising more than 10 employees, with 10 percent responsible for more than 25 employees. It may be noted that this latter number identifies a larger span of control than is generally considered to be optimum for effective supervision.

General Job Responsibilities of the Word Processing Supervisors/Managers. An examination of how the supervisors spend their time indicates that, as with most first-line supervisors, the largest part of their time (about one-third) is spent on the directing and coordinating function. Time is about equally spent among the other three areas of planning, organizing, and controlling. The directing and coordinating responsibility necessitates very close contact with the word processing personnel supervised. A word processing supervisor must not only motivate the personnel supervised but also must be very aware of employee progress in order to evaluate performance. Supervisors also play an important role in the selection of word processing personnel and are responsible for developing on-going training programs. These data are somewhat comparable to that found in the Murranka study.

An important aspect of the supervisors' controlling responsibility is administering some type of work measurement program. Survey data suggest that it is becoming the norm in word processing to institute work measurement systems, as four-fifths of the respondents in this study and three-fourths of those responding to the most recent Deutsch, et al., studies indicated some form of work measurement in use. This study indicates line count as the most common form of measurement, as do several of the other studies. The major use of measurement results was for evaluation of total word processing production. However, note should be made that having to keep a line count of work produced was found to be a source of dissatisfaction among correspondence secretaries in the Reiff study.

Supervisors must assume as a planning responsibility the determination of the needs of their word processing staff. They must analyze the paperwork and applications in their organizations. More than four-fifths of the supervisors have been involved in determining needs and making recommendations to upper management concerning obtaining new word processing equipment. Consequently, as might be expected, it would appear that word processing supervisors have a great need to keep up with new developments and changes in equipment.

Typical of the organizing responsibilities of supervisors are organizing the work flow and coordinating work schedules of personnel. Also, it is important to note that 86 percent of the supervisors recognized their responsibility for creating an effective work environment, both physical and psychological. Word processing operators, however, when mentioning their job dislikes, have frequently indicated both inadequate management and physical environment. Supervisors recognize their responsibility in creating an effective work environment, but evidently they have had difficulty fulfilling this responsibility.

In addition to the normal management functions, supervisors of word processing should expect to be able to operate equipment, as over half the respondents to both this survey and the most recent Deutsch, et al., survey have indicated that they operate word processing equipment at least part of the time. Also, Mitchell found that operators were dissatisfied with supervisors who were unfamiliar with the equipment.

Organizational Structure of Word Processing. Although the periodical literature and the Deutsch, et al., study indicated some move away from the centralized approach to word processing, a majority (62 percent) of the survey respondents in this study still indicated a centralized form of organization. This percentage is comparable to the 64 percent found in the Walshe study, although the Rohrer study found the most frequently cited structure was small satellite centers. Those signifying a decentralized or mixed approach indicate the adoption of satellite patterns or the establishment of mini-centers or clusters rather than significant numbers of individual work stations.

General Areas of Word Processing Responsibility. As might be expected, word processing operators are spending the greatest part of their time on the typing/keyboarding function. The kinds of work most frequently done correspond with those shown in other studies—correspondence 90 percent and narrative 89 percent. However, 80 percent also indicated that they perform statistical typing. A large majority (85 percent) of the word processing installations also are structured to handle special jobs involving unusual or nonstandardized custom typing when they occur.

Most of the firms in this study are handling considerable handwritten input, for 93 percent of the respondents indicated that they do such work. Studies by Sisco, Moody, and Rohrer also

found that there was considerable handwritten input. Many (about four-fifths) of the respondents indicated that they handle a large amount of revision work and transcribe machine dictation as well.

Certain policies seem to be coming into rather general use. For example, 94 percent of the supervisors indicated that word processing document production personnel are used as "back-up" administrative support secretaries when needed in their organizations. This policy would appear to indicate that the word processing personnel should not only be qualified to operate equipment but also to carry out many administrative secretarial functions as well.

A majority of the supervisors in this study also indicate that the word processing operators in their organizations provide service to any, not just designated, principals requiring word processing services and the work is generally performed on a first-in, first-out basis.

About half of the supervisors in this study indicate that either a built-in career progression is available for them or that their organizations were working on such a plan.

Training. Although a number of the supervisors and managers indicated that they had received some type of assistance in developing management skills, either through some type of training within their organizations or from courses provided by the vendors, a large majority of them (72 percent) perceived a need for on-going training. That the changes occurring in the field are of concern to these supervisors is evident by the fact that about half of them suggested they needed on-going training in management information systems, including background in such topics as the interfacing of word processing and data processing. The supervisors also have perceived a need for on-going training in the methods and techniques of supervising people.

Although a number of different titles are used, Word Processing Operator was the title most frequently mentioned to describe those persons operating word processing equipment. Most of the respondents indicated that equipment training is more apt to be provided by vendor schools than by any other means; however, about 40 percent of the employing organizations are providing their own training. This may be influenced by some of the vendors charging for training more than a specific number of employees per machine. Vendor charges may also be influencing the considerable number of supervisors (39 percent) who indicated by a write-in response that equipment training was what entry-level word processing operators needed over and beyond traditional secretarial training.

The most frequently cited major weakness of entry-level Word Processing Operators was inadequate grammar skills. Most of the other weaknesses identified by the supervisors were also related to the language arts—inadequate spelling skills, proofreading skills, and knowledge of punctuation. These findings reinforce those reported in the literature and in many research studies (Deutsch, Sisco, Rohrer, Shearer).

An important factor related to both typewriting training and work experience is that in 90 percent of the organizations the operator is responsible for correct formatting. On the other hand, proofreading is often a combination of two methods—specific persons assigned to proofread most work (proofreaders) or the Word Processing Operators have responsibility for proofing their own work.

At the same time, a far greater number of Word Processing Supervisors indicated that basic typewriting training is of even greater importance and should be learned in school; the Sisco research reported similar findings.

The respondents were not in complete agreement about the average length of the learning curve for newly employed word processing operators who could type 40-50 wpm accurately but who had not been trained on magnetic media. The responses varied, probably because of the differences in applications and needs. Over 75 percent measured the time required to learn the equipment in months rather than in days. The largest percentage of them indicated that it took from three to four months. Also, the kind of equipment and general sophistication of the equipment upon which the newly employed operator was being trained would probably have an influence on the length of the learning curve.

Entry-level Requirements of Word Processing Operators. A majority (62 percent) of the organizations administer a straight-copy, timed writing typing test to prospective employees,

usually with a minimum of 50 words a minute required, while 32 percent administer some form of grammar test. Most studies have found 50 words a minute minimum typing speed to be the most prevalent standard.

Newspaper and other media advertising are most frequently used to recruit word processing personnel, possibly to attract experienced operators, since previous work experience was identified as being the most important employment factor considered in hiring word processing operators. Stelzner also found a relatively high use of newspaper advertising in recruiting. Another important employment factor was the impression made in the application process, related also to the second most frequently used method of recruiting, that of direct application. Still another major employment factor considered in hiring word processing operators was the extent of training on word processing magnetic equipment.

Word Processing Operators/Correspondence Secretaries

Definition as used in survey instrument: A Word Processing Operator/Correspondence Secretary is a secretary in a work center, mini-cluster, work station or large central center who performs production-oriented typing tasks.

Summary of Most Frequent Responses

The data in Chapter 4 of the original report represent the personal information supplied in the responses of the 317 Word Processing Operators/Correspondence Secretaries and their opinions concerning job-related topics. Only the most frequently chosen responses for each question are highlighted here.

1. The region with the highest representation of Word Processing Operators/Correspondence Secretaries in this study was North-Central, with 37 percent indicating employment within firms in the midwestern part of the United States.

2. One-fifth of the respondents were employed in organizations classified as Finance, Insurance, or Real Estate (20 percent).

3. Most of the responding Word Processing Operators/Correspondence Secretaries were female (96 percent).

4. The respondents generally were less than 40 years of age (84 percent), with 58 percent classified in the 20 to 29 age range.

5. Nearly two-thirds of the respondents (64 percent) had previously been employed as secretaries with five years of experience.

6. The single most-used job title of the respondents was Word Processing Operator (19 percent).

7. Over two-thirds of the surveyed Word Processing Operators/Correspondence Secretaries (69 percent) had been employed three years or less in their present position.

8. The most frequently earned degree was a high school diploma, with 93 percent of the Word Processing Operators/Correspondence Secretaries having graduated from a comprehensive high school.

9. General Job Responsibilities and Duties Performed "Always or Often":

Typewriting and Transcription—typed letters and memos (69 percent), typed short documents of ten or fewer pages (63 percent), typed from handwritten input (69 percent), and proofread all typed documents (72 percent).

Records Management—organized and maintained a filing system for stored or recorded data (64 percent).

General Clerical—met and greeted people (28 percent).

Office Machines and Equipment—changed typewriter ribbons and took general care of equipment (79 percent).

Telephone—answered incoming calls (40 percent).

Office Procedures—used the dictionary (61 percent) and handled revisions (81 percent).

Administrative—followed directions from supervisors (85 percent).

Of these seven areas, 70 percent of the total work time of the respondents was spent in typewriting or transcribing responsibilities and duties.

10. Two-fifths of the Word Processing Operators/Correspondence Secretaries received their initial training on magnetic media equipment from the organization for which they worked (40 percent).

11. Over half of the respondents indicated having attended equipment vendor schools when they were first hired as a Word Processing Operator/Correspondence Secretary (52 percent).

12. Word Processing Operators/Correspondence Secretaries learned of new equipment, procedures, and applications primarily from vendor demonstrations (54 percent).

13. No established career path for the Word Processing Operators/Correspondence Secretaries existed in the employing organizations (52 percent).

14. The major weakness cited by Word Processing Operators/Correspondence Secretaries was inadequate grammar skills (70 percent).

15. The primary employment "like" was the variety of work handled (67 percent), and the chief employment "dislike" concerned the physical work facilities and arrangement (38 percent).

16. Very important competencies needed by entry-level word processing personnel and where they should be learned included:

> **Typewriting and Transcription**—the ability to type with accuracy (89 percent) should be learned in school and on the job (50 percent); the ability to type from both typed copy and rough draft (74 percent each) should be learned in school and on the job (42 percent concerning typed copy and 40 percent relative to rough draft); the ability to keyboard documents with satisfactory turnaround time (83 percent) is largely the joint responsibility of the school and the employing firm (45 percent); the ability to demonstrate competency in listening and following directions (90 percent), should be learned both in school and on the job (49 percent).
>
> **Records Management and Telephone**—the ability to organize and maintain a filing system for stored and recorded data (52 percent) should be learned on the job (46 percent); the ability to handle telephone duties (45 percent) should be a combined learning situation in the school and on the job (43 percent)
>
> **Office Machines and Equipment**—the ability to operate individual dictation equipment (54 percent) should be learned both in school and on the job (51 percent).
>
> **Data Collection, Research, and Mathematics**—the ability to use a dictionary (85 percent) should be learned in school (68 percent); the ability to compute individual production records (30 percent) should be learned on the job (57 percent).
>
> **Grammar**—the ability to spell, punctuate, and capitalize (94 percent) should be learned in school (61 percent).
>
> **General Clerical Skills and Administrative**—the ability to follow directions from a supervisor (93 percent) should be learned both in school and on the job (45 percent).

Discussion

The responses from the 317 Word Processing Operators/Correspondence Secretaries who took part in this survey provide a basis for understanding both how the word processing operator position is developing, what the job duties and responsibilities are, and the role of the schools in preparing students for these types of positions. When this information is considered along with that noted in the review of literature in Chapter 2 of the original report, it becomes apparent that there is a developing body of knowledge which can be helpful to those designated to build proper curricula and/or training programs.

Profile of Word Processing Operators. Although word processing is cited as a field of opportunity for men, all studies seem to indicate that although some men enter word processing

fields, there continues to be a heavy preponderance of women (in this study 96 percent). Word processing is most often staffed at the operator level by younger office workers—84 percent were less than 40, and 58 percent were in the 20 to 29 age range. This is contrasted with the study of Administrative Support Secretaries in Chapter 6 of the original report, where the greatest number were found to be in the 30 to 39 age range. Most of the Word Processing Operators/Correspondence Secretaries have previously been employed as secretaries, with an average of five years of experience, again contrasted with the Administrative Support Secretaries with an average of eight years of experience. Since Word Processing is a recent development in most organizations, it is not unexpected to find that over two thirds of those surveyed had been employed three years or less in their present positions.

The most commonly used title to describe the person operating the equipment is Word Processing Operator, both in this study an in the recent Deutsch, et al., survey. This is in contrast with earlier studies which had indicated Correspondence/Secretary as the most common title. Rank order both in this study and the Deutsch, et al., study was Word Processing Operator, Correspondence Secretary, and Word Processing Specialist. Note that two of the three most frequently used job titles include "word processing" in the title; use of this term appears to be gaining in usage. In this study slightly over 50 percent of the respondents used "word processing" in the title.

The most frequently earned degree was a high school diploma; 93 percent of the Word Processing Operators had graduated from high school. It is interesting to note that considerably over half of them (62 percent) had attended some type of postsecondary institution. Nearly half (45 percent) of these individuals received a degree or certificate.

General Job Responsibilities of Word Processing Operators. Responses from the Word Processing Operators/Correspondence Secretaries indicate that an average of 72 percent of their total working time was estimated to be spent on the typing/keyboarding and transcription function. Major activities on which these operators spent their time were the typing of letters, memos, and short documents of ten or fewer pages. All of these documents were often produced from handwritten input. Nearly three-fourths (72 percent) indicated that they also proofread all of these types of documents. Further analysis of the typing/keyboarding activities reveals that some of the operators typed many other kinds of materials (such as reports, legal documents, business forms, company manuals, tabulated and statistical data, and financial statements), but all of these materials were not prepared by all of the operators. Also, more than half the respondents spent considerable amounts of their time on playing back copy, revising work, machine dictation, and setting priorities for completion of documents and tasks.

Among the other job duties of Word Processing Operators, which over half the respondents indicated they performed to a considerable degree, were organizing and maintaining some type of filing system for stored or recorded data, logging work in and out, and maintaining and updating programmed stored data. Generally, word processing operators had little responsibility for meeting and greeting people and for maintaining office supplies.

Equipment used, as reflected in the survey responses, was primarily first generation (memory, mag card, mag tape, etc.); about 30 percent were using second generation cathode ray tube display units. Nearly four-fifths (79 percent) of the respondents also indicated they had responsibility for changing ribbons and generally taking care of equipment. Responsibility for telephone handling, other than answering incoming calls, was minimal.

The responses also gave very heavy emphasis to the operators' responsibility for using a dictionary, formatting new jobs, and setting their own work priorities, in addition to the previously mentioned need to proofread their own work and handle revisions. A major responsibility noted by 85 percent of the respondents was following directions from supervisors.

Training. Responses from the Word Processing Operators coincided with those of the Supervisors; over half (52 percent) indicated that they received their initial training on magnetic media from equipment vendors, while 40 percent received their training from the organizations for which they worked. The primary source for learning about new equipment, procedures, and applications was vendor demonstrations, cited by 54 percent of the respondents.

Although the career opportunities or "paths" available in word processing were frequently cited, somewhat over half (52 percent) indicated that there was no established career progression in existence in their organizations at present. Other research (Deutsch, et al., Shearer, Rohrer) has also indicated that some organizations have career ladders, but most have no more than three levels of positions in word processing. One of the major causes of employee turnover often cited is related to the desire for career advancement and lack of promotional opportunity.

Weaknesses, Likes, and Dislikes. Word Processing Operators recognize their own weaknesses, for the same major weaknesses cited by Supervisors were also indicated by the Operators themselves. All of them related to English skills—inadequate grammar skills, inadequate knowledge of punctuation, inadequate vocabulary or lack of specialized terminology, and lack of skill in using the dictionary. These kinds of weaknesses have been noted continually in many research studies over a number of years (Sisco, Moody, et al.).

A considerable number of the Word Processing Operators (67 percent) expressed in a write-in response that what they most liked about their jobs was the variety of work. This was in contrast to only 21 percent who reported that what they disliked most about their jobs was the tedious, boring work. Other written-in responses concerning job likes or satisfiers, which have also been found in other research (Sneed, Reiff, and Mitchell), are machine capability (57 percent), efficiency (57 percent), and fellow employees (51 percent).

Job dislikes appeared to be more personal and related to the particular situation. The responses and percentages were much more scattered. Dislikes cited were physical work facilities and arrangement (38 percent), time pressure at peak periods (25 percent), and fellow employees (10 percent). Many of these responses would appear to indicate that the particular situation and perhaps the type of supervision (as also suggested by Mitchell) had considerable influence on the responses.

Competencies Needed. The responses concerning the competencies needed by entry-level Word Processing Operators, together with the findings of other research studies, specify clearly the competencies for which entry-level operators should strive.

Competence in listening and following directions emerges as being of primary importance, for the greatest number of respondents (90 percent) indicated they considered this competency very important. It was also found to be of major importance in the research of Kusek in 1974 and of Moody in 1978.

The highest number of responses specifically concerned with typewriting and transcription indicated that the ability to type with accuracy was very important (89 percent). This is contrary to the oft-expressed opinion that the correcting capabilities of the equipment reduce this requirement.

Other competencies considered very important by large numbers of individuals were:

(1) keyboarding documents with satisfactory turnaround time (83 percent),
(2) proofreading typed documents (80 percent),
(3) typing letters and memos (77 percent), and
(4) typing both from typed copy and rough draft (74 percent).

Competencies considered very important by *over half* the respondents but not by so many as the preceding list were:

(1) typing other applications such as reports, tabulated materials, and from handwritten notes and machine dictation;
(2) keyboarding and revising information on magnetic tape or cards;
(3) setting priorities on documents and tasks; and
(4) handling confidential correspondence and data.

The survey instrument also was designed to determine where the Word Processing Operators believed those competencies considered to be important should be learned. Most respondents indicated that the ability to type from handwritten notes, the ability to order the preparation of documents and tasks, and the ability to handle confidential correspondence and data should be learned on the job. The largest percentage of the respondents indicated that the teaching of most of the competencies was a joint responsibility shared by both the schools and the employing firms.

As they had in several other research studies, many competencies related to English skills emerged as very important for entry-level word processing secretaries. The ability to spell, punctuate, and capitalize was checked very important by 94 percent of the respondents. Other competencies considered very important by *more than 75 percent* of the secretaries surveyed were the ability to:

(1) construct proper forms of sentences,
(2) use the dictionary,
(3) proofread,
(4) demonstrate good vocabulary.

Participating secretaries believed that all of these competencies should be learned in school.

Finally, the word processing secretaries made very clear (93 percent) the importance of entry-level employees' being able to follow directions from a supervisor. Most of the respondents indicated that this competency is one to be learned both in school and on the job.

Those competencies considered very important by *between 50 and 75 percent* of the respondents include:

(1) organizing and maintaining a filing system for stored and recorded data,
(2) operating dictation equipment,
(3) using secretarial manuals, word processing procedures manuals, and equipment operating manuals,
(4) alphabetizing, and
(5) reading and interpreting business documents.

The respondents believed that alphabetizing and using secretarial manuals should be learned in school. They also believed that the employing firm and the schools share responsibility for developing the ability to operate dictation equipment and to read and interpret business documents. The respondents indicated that the remaining competencies should be learned primarily on the job.

The findings on needed competencies follow very similar patterns to those found in previous research studies.

Administrative Support Supervisors/Managers

Definition as used in survey instrument: This person is to have direct responsibility for administrative support within the organization and should be the individual to supervise or manage all those who provide administrative support.

Summary of Most Frequent Responses

The data in Chapter 5 of the original report represent the personal information supplied in the responses of the 95 Administrative Support Supervisors/Managers and their opinions concerning job-related topics. Only the most frequently chosen responses for each question will be cited here.

1. The region with the largest percentage of respondents was the North-Central region, which represented 33 percent of the responding organizations.

2. There were five industries having 10 percent or more of the total responses, with the Finance, Insurance, or Real Estate industry representing 17 percent of the respondents.

3. A large majority of the Administrative Support Supervisors/Managers were female (77 percent).

4. Over half of the respondents were under age 40 (57 percent), with 36 percent indicating they were age 30-39.

5. Nearly two-thirds of the Administrative Support Supervisors/Managers (64 percent) indicated that they had previously held the position of a supervisor.

6. The most prevalent job title of the respondents was Supervisor, Secretarial Services (15 percent).

7. Almost half of the respondents (47 percent) had been employed in their present position from one to three years.

8. Ninety-four percent of the respondents had graduated from high school; 52 percent of the surveyed Administrative Support Supervisors/Managers had attended a four-year college or university, with nearly half of them having received a certificate or degree.

9. About one-third (34 percent) of the respondents indicated that document preparation had been separated totally or partially for one to three years from the administrative support functions.

10. The most prevalent administrative support organizational pattern for responding organizations was decentralized (42 percent).

11. The most prevalent type of decentralized administrative support organizational pattern was individual work stations, with 54 percent of those with a decentralized organization using that pattern.

12. Nearly three-fourths (72 percent) of the respondents indicated that their organization was structured for custom typing performed by administrative support personnel.

13. In 54 percent of the organizations represented by the respondents, a designated department was responsible for administrative support budgeting and reporting.

14. The most frequently mentioned general area of responsibility of administrative support secretarial personnel was performing telephone services (90 percent).

15. Sixteen percent of the organizations had an estimated 101-250 principals using administrative support services.

16. About two-thirds (68 percent) of the Administrative Support Supervisors/Managers were female, while 89 percent of the Senior Administrative Secretaries were female. Virtually all of the Administrative Support Secretaries were female (99 percent).

17. Administrative Support Secretaries provided service to selected principals usually and to any other principals when needed (42 percent).

18. In 43 percent of the organizations, Administrative Support Secretaries received work assignments from both the supervisor/manager and from a specific principal.

19. About 60 percent of the organizations used a "team approach" in providing service to principals.

20. Over one-third (36 percent) of the Administrative Support Supervisors/Managers supervised between one and five employees.

21. The most frequently mentioned planning responsibility carried on always or often by Administrative Support Supervisors/Managers was analyzing office systems and administrative procedures and determining the needs of principals (68 percent each).

22. The most frequently mentioned organizing responsibility carried on always or often by Administrative Support Supervisors/Managers was creating an effective physical and psychological work environment (79 percent).

23. Establishing productivity standards was the area of controlling responsibility most frequently mentioned by Administrative Support Supervisors/Managers as being performed always or often (50 percent).

24. Monitoring employee progress was the directing and coordinating responsibility most often mentioned as being performed always or often by Administrative Support Supervisors/Managers (75 percent).

25. Administrative Support Supervisors/Managers spent the largest proportion of their working time in the area of directing and coordinating responsibilities (31 percent).

26. In nearly two-thirds of the organizations (65 percent), administrative secretarial support was provided to one or more principals part of the time by Administrative Support Supervisors/Managers.

27. In 52 percent of the organizations no training was provided for Administrative Support Supervisors/Managers prior to or within the first six months after assuming their supervisory positions.

28. The type of training for Administrative Support Supervisors/Managers most often offered by organizations who did provide training was in-house management training program(s), with 24 percent offering that type of training.

29. Sixty-one percent of the Administrative Support Supervisors/Managers indicated they perceived a need for on-going training for themselves.

30. The type of training need most frequently mentioned by Administrative Support Supervisors/Managers was on the topic of methods and techniques of supervising people (33 percent).

31. Nearly two-thirds of the respondents (65 percent) indicated there was not a career path in their organizations for word processing Administrative Support Supervisors/Managers.

32. The most frequently mentioned job title for employees who performed primarily non-typing secretarial duties was Secretary (19 percent).

33. The source of initial basic office training of Administrative Support Secretaries most frequently mentioned by the Administrative Support Supervisors/Managers was high school (44 percent).

34. No in-service training was received by newly employed Administrative Support Secretaries in 52 percent of the organizations.

35. Of those organizations providing in-service or other training for new Administrative Support Secretaries, the extent of training most frequently mentioned was from one to twenty-five hours in duration.

36. About two-thirds of the organizations (65 percent) administered employment tests to potential Administrative Support Secretaries.

37. The most prevalent type of employment test administered to potential Administrative Support Secretaries was a timed-writing typing test (56 percent).

38. Typing skills were required for Administrative Support Secretaries by 62 percent of the organizations.

39. Two-thirds of those organizations (67 percent) required a minimum typing speed of 50 words a minute or more for potential Administrative Support Secretaries.

40. Over half (51 percent) of the organizations required shorthand skills of Administrative Support Secretaries, either for all positions or for certain positions only.

41. Sixty-three percent of those not requiring shorthand also said it was not a preferred skill either.

42. The employment factor most often considered in hiring Administrative Support Secretaries was type of previous work experience (93 percent).

43. The most frequently mentioned major recruiting source of Administrative Support Secretaries was transfers within the organization (63 percent).

44. Nearly three-fifths of the organizations (59 percent) did not use work measurement systems in the administrative support area.

45. Of those organizations using a work measurement system, the type of system most often described by the respondents was one in which periodical performance evaluations were made by the principal and/or supervisor.

46. The results of these work measurement systems were most likely to be used in evaluating the time expended on completing tasks or jobs.

47. Fifty-nine percent of the respondents indicated that entry-level Administrative Support Secretaries had major job-related weaknesses.

48. The major job-related weakness of entry-level Administrative Support Secretaries most commonly cited by the Administrative Support Supervisors/Managers was inadequate grammar skills (31 percent).

49. The most often mentioned areas of additional training, beyond those necessary for traditional secretaries, needed for entry-level Administrative Support Secretaries were applied English skills (21 percent) and development of a professional attitude toward work (21 percent).

Discussion

Generally, it has been known and recognized that the administrative support secretarial function has not been implemented as fully as has the word processing secretarial function. The *Word Processing Systems* study (published in January, 1980) points out, however, that an increasing number of organizations (from 30 percent in 1975 to 50 percent in 1980) have implemented administrative support and that another 20 percent stated their intention to do so. Therefore, the responses from the 95 individuals (about 30 percent of the total number of organizations represented in the study) performing the Administrative Support Supervisor/Manager functions provide a perspective concerning the role and patterns of development which have not been available previously to any extent. For this reason, comparisons may be made only with the role of the Word Processing Supervisor.

Profile of Administrative Support Supervisors/Managers. The Administrative Support Supervisor/Manager is probably a female, although 18 percent of those participating in this

study were male. Administrative Support Supervisors tend to be just a little older than the Word Processing Supervisors; 57 percent were under 40, although 36 percent were between 30 and 39 years of age. Most of them have previously held jobs as secretaries, and nearly two-thirds of them (64 percent) have also previously been supervisors. Probably reflecting that the word processing administrative support concept is relatively new, 73 percent have been in their present positions less than three years and 25 percent less than a year.

A great variety of titles is used for those individuals fulfilling the supervisory role. The single most common title is Supervisor, Secretarial Services (15 percent). However, when Supervisor, Administrative Services and Supervisor, Administrative Support titles are combined, the total containing the word "Administrative" is 22 percent. Another 17 percent carried the title of Manager—of Secretarial Services, of Administrative Services, or of Support, etc. Still another 7 percent were titled Coordinator, again in combination with a variety of other terms. General terms most frequently used, in about even proportions, were Administrative Services, Administrative Support, and Secretarial Services. Although the concept has been accepted, there does not seem to be agreement on the appropriate terminology to describe the function.

The level of education was quite high, for nearly all of the supervisors (94 percent) had graduated from high school; a very high percentage (89 percent had obtained some education beyond high school; over half (52 percent) had attended a four-year college or university, with 57 percent of them indicating they had earned a degree or certificate.

General Job Responsibilities of the Administrative Support Supervisors/Managers. The span of responsibility of the respondents varies considerably. Most were supervising only one to five employees; on the other hand, 42 percent were supervising more than ten, with 13 percent responsible for more than twenty-five. However, the 17 percent of the respondents who were managers may, in turn, have had supervisors reporting to them who were carrying out closer supervision of smaller groups.

An examination of how the supervisors spent their time indicated that, as with the Word Processing Supervisors and most other supervisors, the largest part of their time (about one-third) was spent on the directing and coordinating function. Also, the three areas of planning, organizing, and controlling were about equal in the amount of time spent on them. The primary responsibilities were the same as those of the Word Processing Supervisors—to maintain close contact with the personnel supervised, to motivate them, and to monitor their progress in order to conduct performance evaluations. Large numbers of the supervisors also indicated that they had considerable responsibility in the selection and training of the administrative support personnel and for developing and implementing on-going training and developmental programs for their administrative support personnel.

Important aspects of the planning responsibilities of the Administrative Support Supervisors were analyzing office systems and administrative procedures, together with determining the needs of the principals. Nearly as important were providing orientation to management and other employees and developing, writing, and implementing procedures.

Administrative Support Supervisors also recognize as a major organizing responsibility the creation of an effective physical and psychological work environment. Here, too, the Administrative Support Secretaries indicated that their environment is one of their job dislikes. These responses would appear to indicate that supervisors recognize their responsibility but are not always able to carry it out effectively. These supervisors also acknowledged organizing work flow as a major responsibility.

Although the controlling responsibility was considered to take about equal time with planning and organizing, the respondents did not indicate that they performed many of the controlling responsibilities to any great extent. For example, about 60 percent of the respondents indicated that they do not use any form of work measurement system to measure the production of Administrative Support Secretaries in their organizations. Those organizations using such measurements indicated that they were used primarily to determine time expended in completion of certain tasks and to evaluate employees.

Organizational Structure of Administrative Support. Again reflecting that administrative support and word processing have been implemented relatively recently in their organizations, 43 percent of the respondents indicated that document preparation had been separated totally

or partially from the administrative support functions for less than three years and 34 percent from one to three years. Administrative support tended to be more decentralized than Word Processing, for only 33 percent indicated it was centralized, as contrasted to 62 percent in Word Processing. More of those indicating a decentralized or mixed approach indicated the use of individual work stations rather than satellite patterns.

Although 85 percent of the Word Processing Supervisors indicated that their installations were structured to handle special jobs involving custom typing, 87 percent of the Administrative Support Supervisors indicated that custom typing was performed occasionally or regularly by administrative support personnel.

Administrative support had been implemented on a rather large scale in some organizations, for 25 percent of the respondents indicated that 100 or more principals in their organizations used administrative support services.

Most of the organizations provided administrative support service to selected principals only, although a considerable number provided service to any other principals when needed. Most of the organizations were structured so that Administrative Support Secretaries received work assignments from both the supervisors and from specific principals, with nearly two-thirds of the organizations using a team approach to provide the service.

General Areas of Administrative Support Responsibility. Just what administrative support entails is becoming more clear. The oft-quoted traditional duties of copying, filing, and performing telephone services are indeed part of the administrative support responsibility in many organizations. However, over three-fourths of the respondents indicated that in their organizations administrative support also includes the following: assisting principals with administrative details, gathering data of various kinds, keeping various records, making appointments, making meeting and conference arrangements, making travel arrangements, and typing limited or custom work primarily. Over half the supervisors also indicated that administrative support entails organizing work flow and originating correspondence.

These Administrative Support Supervisors also indicated that one of the responsibilities (in 43 percent of the organizations) is assisting word processing personnel as "back-up" to keep up with work overloads.

Training. In 52 percent of the organizations, the Administrative Support Supervisors had not been provided with any type of training to assist them in assuming their supervisory duties. Those who had received such training most frequently obtained it through in-house management training programs, although seminars or workshops provided by outside professional groups were a close second. A considerable number (61 percent) perceived a need for on-going training. Perceived training needs varied considerably, but methods and techniques of supervising people and development and implementation of goals and objectives were most frequently indicated.

Only 18 percent of the respondents indicated that they presently had any type of "built-in" career progression established for their positions within their organizations; another 14 percent indicated that this was being worked on.

Considerable semantic confusion is also apparent in the job title used to describe those employees who are performing the administrative support function, primarily the nontyping secretarial duties. The most frequently used single title remains the traditional term of "Secretary" (19 percent). A considerable number, however, are using Administrative Assistant or Administrative Secretary. In fact, all the various titles including the term "administrative" total 38 percent. The source of initial, basic office training for these individuals is most often high school. Over half the organizations (52 percent) provided no training for these employees.

Entry-level Requirements of Administrative Support Secretaries. The majority (65 percent) of the organizations administered employment tests to potential Administrative Support Secretaries. Most frequently straight-copy typing tests were administered to Administrative Support Secretaries as well as to Word Processing Operators. The same minimum of 50 words a minute was required in most organizations. About one-third of the organizations also gave shorthand, language arts, and general clerical aptitude tests. About half of the organizations required shorthand skills of Administrative Support Secretaries, either for all positions or for certain positions only.

The most frequently indicated source utilized for recruiting administrative support personnel was transfers from within the organization. This was the case probably because the most important factor in determining whether an applicant would perform satisfactorily as an Administrative Secretary was their previous work experience.

When first implementing the administrative support function in an organization, literature reveals that quite often many of the "traditional" secretarial employees elected to join this segment rather than the word processing unit. This might explain why transfers from within the organization were cited so frequently. When the administrative support function is more readily accepted in organizations, other recruitment sources may take on added importance.

Although Administrative Support Secretaries were typically considered to be performing nontyping duties, the major weaknesses of these secretaries cited were inadequate basic typing skills (perhaps this is one reason Word Processing Centers have been established), inadequate grammar skills, and inadequate spelling skills. The latter two are the same weaknesses cited for the Word Processing Operators.

Applied English skills and professional attitude towards work were indicated by write-in responses of the supervisors as those areas of needed training for entry-level Administrative Support Secretaries over and beyond those required for "traditional" secretaries.

Administrative Support Secretaries

Definition as used in survey instrument: This individual performs secretarial support functions for more than one principal that are primarily of a non-typing nature and include such responsibilities as scheduling appointments, making travel arrangements, filing, receptionist duties, originating routine correspondence, sometimes doing preliminary research, etc.

Summary of Most Frequent Responses

The data in Chapter 6 of the original report represent the personal information supplied in the responses of the 163 Administrative Support Secretaries and their opinions concerning job-related topics. Only the most frequently chosen response for each question will be capsuled here.

1. The region with the highest percentage of respondents of Administrative Support Secretaries was North-Central, with 33 percent indicating this region of the United States.
2. The Finance, Insurance, or Real Estate industry was represented by a greater number of respondents (17 percent) than any other single type of industry classification.
3. Ninety-seven percent of the respondents were female.
4. More than three-fourths (78 percent) of the Administrative Support Secretaries were less than 40 years of age, with 36 percent of them being between the ages of 30 and 39.
5. Eighty-five percent of the respondents had secretarial experience prior to becoming an Administrative Support Secretary; the average number of years of previous secretarial experience was eight.
6. The most frequently mentioned job title of the respondents was Administrative Secretary (22 percent).
7. Seventy percent of the Administrative Support Secretaries had been employed in their present position three years or less.
8. Ninety-three percent of the respondents had attended a comprehensive high school, with 89 percent having been graduated; nearly 80 percent had attended an educational institution beyond high school, with half of them indicating that they had earned a degree or certificate.
9. Forty-five percent of the Administrative Support Secretaries received more than half of their work directly from originators/principals.
10. The number of principals the Administrative Support Secretaries assisted varied widely, with the largest percentage assisting five to eight originators/principals (22 percent); however, 16 percent provided support to only two originators/principals within the organization.
11. In the area of written communication, the most frequently identified responsibility of the Administrative Support Secretaries was composing written communications from oral directions (79 percent).
12. In the oral communications area, the responsibility most often cited was answering the principal's telephone and routing the calls (90 percent).

13. In the area of assistance to the principal, two job responsibilities were mentioned equally as often: organizing the flow of incoming mail and meeting office visitors (each was checked by 84 percent of the respondents).

14. In the area of recordkeeping, maintaining a set of general office files for a principal was the most frequently mentioned responsibility by the Administrative Support Secretaries (88 percent).

15. In the area of office administration, the most often identified responsibility was to make recommendations concerning office systems and procedures (68 percent).

16. In the area related to the use of machines, the job responsibility most often checked by the Administrative Support Secretaries was using a copying machine (95 percent).

17. The Administrative Support Secretaries indicated that they believed they spent more of their time with responsibilities associated with the area of written communications than with any other single area: they estimated spending 30 percent of their time in these activities.

18. Twenty-nine percent of the respondents reported receiving their initial basic office training in high school.

19. In-house presentation was the source of in-service/other training cited by 49 percent of the Administrative Support Secretaries.

20. No career path existed for Administrative Support personnel in organizations represented by 58 percent of the surveyed secretaries.

21. Inadequate vocabulary, including a lack of specialized terminology, was the major weakness of Administrative Support Secretaries most frequently identified by the respondents (36 percent).

22. The employment "like" most frequently cited by the Administrative Support Secretaries was the variety of work they performed (67 percent).

23. The physical facilities and arrangement was the "dislike" most often identified by the Administrative Support Secretaries (39 percent).

24. Several competencies related to typewriting and transcription were identified as being very important for entry-level Administrative Support Secretaries. The ability to type with accuracy was cited by 91 percent of the respondents, and 51 percent said this competency should be learned in school. Seventy-one percent indicated that the ability to type from typed copy was very important and should be learned in school (45 percent). The ability to operate an electric typewriter was deemed very important by 77 percent of the respondents and 62 percent said that this ability should be learned in school. Most of the survey sample (95 percent) indicated that listening skills and following instructions were very important, while 57 percent believed these competencies should be learned both in school and on the job.

25. The ability to use a filing system was mentioned by 87 percent of the respondents as being a very important records management competency for entry-level Administrative Support Secretaries. The survey group said that this competency should be learned both in school and on the job (51 percent).

26. The telephone competency most frequently mentioned as being very important for entry-level secretaries was the ability to answer incoming calls (93 percent). This should be learned both in school and on the job, according to 41 percent of the Administrative Support Secretaries.

27. The ability to operate a copier was the equipment and office machine competency most frequently identified as being very important for entry-level secretaries by the surveyed Administrative Support Secretaries (74 percent). Forty-five percent of the respondents indicated that this ability should be learned on the job.

28. Sixty-nine percent of the respondents indicated that the ability to sort and route mail was a very important mailing competency, and 4[illegible] percent indicated this competency should be learned on the job.

29. The data collection and research competency most frequently mentioned by the respondents as being very important for entry-level secretaries was the ability to use a dictionary (88 percent). Sixty-one percent indicated that this competency should be learned in school.

30. Spelling, punctuation, and capitalization were checked by 96 percent of the respondents as very important grammar skills. Seventy percent of the respondents indicated that these should be learned in school.

31. The financial, bookkeeping, and mathematical competency which was checked most frequently as being very important for an entry-level Administrative Support Secretary was handling bank accounts (25 percent). Forty-three percent of the respondents said that this skill should be learned in school, while almost as many (42 percent) said this should be learned both in school and on the job.

32. The largest percentage of respondents (87 percent) regarded the ability to meet and greet people as a very important general clerical skill. They indicated this skill should be learned in school and on the job (47 percent).

33. The ability to follow directions from the supervisor was indicated by 95 percent of the respondents as a very important competency, and 50 percent felt that the competency should be learned both in school and on the job.

Discussion

The responses from the 163 Administrative Support Secretaries who took part in this survey provide a basis for understanding how the position is developing, what the job duties and responsibilities are, and what the role of education is in preparing students for these types of positions. This information, along with that noted in the periodical literature and previous research studies, should be helpful to business educators who are concerned with providing the proper educational programs to prepare all types of secretarial support employees.

Profile of Administrative Support Secretaries. There continues to be a heavy preponderance of females in this position (in this survey 97 percent) with more than three-fourths of them indicating they were less than 40 years of age. The largest number were between the ages of 30 and 39. Nearly all had had previous experience as a secretary or administrative assistant, with an average of eight years of previous secretarial experience. Because the word processing/administrative support concept is a recent development in most organizations, it was not unexpected that 70 percent of the respondents had been employed in these particular positions for three years or less.

The most commonly used title to describe the respondents was Administrative Secretary, which was used in 22 percent of the organizations. However, 15 percent of the respondents reported the use of Administrative Assistant, and another 15 percent indicated use of the title of Administrative Support Secretary.

Most of the respondents (92 percent) were high school graduates. A considerable number (80 percent) had attended an educational institution beyond high school, with about half of them indicating they had earned a degree or certificate.

Administrative Secretaries assisted from one to more than 16 principals with support services. The largest percentage assisted from five to eight originators/principals with their work. Forty-five percent indicated they received the greatest part of their work directly from principals, although 36 percent indicated that they received their work from the supervisor/manager of the administrative support function.

General Job Responsibilities and Duties of the Administrative Support Secretaries. Responses from the Administrative Support Secretaries indicated that an average of nearly 50 percent of their time was spent in the area of communications. Over 30 percent of their time was spent in written communication and nearly 19 percent on oral communication.

Major activities in the area of written communications on which these secretaries spent their time, even though word processing had been implemented in their organizations, included: copying and composing from employer's longhand notes, composing routine correspondence without directions, composing written communications from oral directions, and preparing rough drafts of responses to correspondence. Administrative Support Secretaries also indicated that they did some typing of speeches, reports, and news releases from copy prepared by originators and some typing of tables, formal reports, and manuscripts. They also edited copy prepared by others. All of these were performed by 50 percent or more of the Administrative Support Secretaries. Studies conducted by Murranka, Moody, and Kusek also reported that administrative support personnel were performing many typewriting tasks.

Although the composition of various types of documents would certainly be justified in order to save time for the principal, it appears that considerable other material was being typed

by these secretaries. One might question whether the secretaries' time should be spent more profitably on other tasks than on the typing of items which could be sent to the word processing center.

Major activities in the area of oral communications on which over 80 percent of the Administrative Support Secretaries spent their time were answering the principal's telephone and either routing calls to him/her or handling the matter themselves.

The Administrative Secretaries indicated that nearly one-fourth (22 percent) of their time was spent in activities classified as assistance to the principal. Eighty-four percent of the Administrative Secretaries met callers who came to the office, a major duty involving oral communication and providing assistance to the principal. Related to this, over 75 percent of the secretaries made appointments, kept a record of them, and reminded their employers of the appointments. Over 70 percent of those responding indicated that they also assisted by: scheduling conferences and meetings; reserving rooms; annotating, summarizing, or digesting incoming mail; organizing the flow of incoming mail; sorting, classifying, and routing it; and gathering information from various internal sources for a principal's use.

Administrative Support Secretaries responding to the study estimated that about 15 percent of their total working time was spent on recordkeeping. The greatest part of these recordkeeping activities was related to filing. About 75 percent or more indicated they had responsibility for the following: maintaining a set of general office files for a principal; maintaining a pending, follow-up, tickler and/or desk reference file; and setting up filing systems.

The Administrative Support Secretaries estimated that 14 percent of their total working time was spent on office administration activities. The secretaries varied somewhat in the extent of office administration responsibility they performed, for the percentages performing certain duties were not quite so high as in other areas. However, over 60 percent kept abreast of new methods and equipment, made recommendations concerning office systems and procedures, organized office routine, and selected or recommended office supplies.

When questioned about their use of machines, the Administrative Support Secretaries indicated the following: 95 percent used a copy machine; 84 percent used an electric typewriter (with 77 percent indicating they used a Selectric typewriter); and 72 percent used a calculator.

Responses indicating an increase or decrease of more than 10 percent from those indicated in the 1966 Wagoner study of traditional secretarial duties are as follows:

Duties Which Have **Decreased** in Frequency Since 1966

Duty	1966 Study	DPE Study	Percent of Decrease
Type stencils, masters, or plates for running on multiple-copy reproducing machines	91	25	66
Write and send telegrams	72	17	55
Type telegrams	72	19	53
Take dictation in shorthand and transcribe	88	44	44
Use "Executive" or other typewriter with proportional spacing	41	16	35
Use manual typewriter	32	2	30
Prepare mailing lists	64	36	28
Maintain confidential company files	89	61	28
Operate multiple-copy reproducing machines: Ditto, spirit or fluid process	30	5	25
Perform housekeeping duties—such as dust, water plants, sharpen pencils, fill pens	80	56	24
Transfer materials periodically to storage files	83	61	22
Select best communication method for given situation (mail, telegraph, or telephone)	69	47	22

Duties Which Have **Decreased** *(continued)*

Operate multiple-copy reproducing machines: Mimeograph (stencil)	23	2	21
Determine when to make use of special postal services (special delivery, certified mail, registered mail)	79	58	21
Answer routine correspondence without directions	84	64	20
Note on or clip to incoming letters information needed for answering	83	64	19
Place long distance calls for employer	76	57	19
Type speeches, reports, news releases, etc., from copy prepared by employer or others	83	65	18
Cull employer's files regularly	84	67	17
Follow up and remind employer of appointments	93	77	16
Type legal papers or documents	50	34	16
Handle all routine matters, referring only problems	91	76	15
Operate an adding machine	78	63	14
Assemble conference materials	68	56	13
Handle confidential records of employees	75	62	13
Type financial statements	46	33	13
Type formal reports or manuscripts	65	53	12
Make hotel reservations	77	65	12
Type mailing lists	48	30	12
Take direct dictation at the typewriter	31	20	11
Read, sign, and release employer's letters for mailing	70	60	10
Compose minutes of conferences and meetings	37	27	10
Select best process for certain multiple-copy jobs	68	58	10

Duties Which Have **Increased** in Frequency Since 1966

Duty	**1966 Study**	**DPE Study**	**Percent of Increase**
Use Selectric Typewriter with various type sizes	14	77	53
Prepare materials for use on automatic typewriter	19	53	34
Operate an automatic typewriter	14	48	34
Use other (open shelf, lateral filing, visible, rotary files) than standard filing equipment	18	49	31
Operate a calculator	44	72	28
Initiate Wide Area Telephone Service (WATS) calls	24	47	23
Do employer's personal banking—deposits, reconcile bank statements, etc.	26	48	22
Organize conference arrangements and/or program	35	55	20
Plan trip itineraries	35	53	18
Plan flow of work within the office	28	44	16
Organize office routine	50	63	13
Use microfilm equipment	5	18	13
Obtain information from data processing for executive use	33	45	12
Keep abreast of new methods and equipment	57	68	11

Duties Which Have Increased *(continued)*

Set up office procedures	44	55	11
Requisition from central files	41	52	11
Make use of microfilm filing, lookup, and printing of copies	18	28	10
Arrange office layout and work space	18	28	10
Supervise clerical and other workers	24	34	10
Keep track of requisitions and budget	34	44	10
Prepare budget	8	18	10

Training. Responses from the Administrative Support Secretaries varied considerably concerning where they received their initial basic office training. The largest group (29 percent) indicated they received their initial training in high school; 20 percent indicated they received it on the job from within the organization; 13 percent indicated that they had received initial office training from a private business college. Other responses were so scattered that none exceeded 10 percent of the total group. Sources of further training also varied, but nearly one-half of the respondents indicated they had learned from in-house presentations. One-third or more indicated they had learned from office magazines and books, seminars and workshops and vendor demonstrations.

The Administrative Support Secretaries, along with other respondents to the entire study, generally did not perceive that there were built-in career progressions available within their organizations, for only about one-third (34 percent) indicated their existence.

Administrative Support Secretaries differed somewhat from the Administrative Support Supervisors in their responses concerning typing skills. They did not perceive themselves as being weak in the basic typing skills. Both groups concurred, however, that some of the other weaknesses were in language skills. Thirty-six percent indicated a weakness of inadequate vocabulary and a lack of specialized vocabulary. About one-third recognized a weakness in their organization of work, and 32 percent indicated that a negative attitude was another weakness.

Sixty-seven percent of both the Administrative Support Secretaries and the Word Processing Operators/Correspondence Secretaries indicated in write-in responses that what they most liked about their jobs was the variety of work. Large numbers, 65 percent and 55 percent respectively, indicated that the aspects they liked best were their fellow employees and the opportunity to control the work environment.

Again, as with the Word Processing Operators/Correspondence Secretaries, the job dislikes appeared to be more personal and related to the particular situation as the responses and percentages were scattered and varied. However, the largest percentage of respondents (39 percent) also indicated that the physical work facilities were their major dislike. About one-fourth of the respondents also indicated tedious, boring work and inefficient management were job dislikes.

Entry-level Requirements of Administrative Support Secretaries

The responses concerning the competencies needed by entry-level Administrative Support Secretaries provide a basis for understanding of needed curriculum content for *all* types of secretaries—those who function as a part of an administrative support team, those who will be word processing operators, and those engaged in the traditional one-to-one support role. A number of the very important basic competencies appear to be the same for all groups. These findings are similar to those in several earlier studies.

Those competencies indicated by *90 percent or more* of the surveyed Administrative Support Secretaries as being very important follow. These include the ability to:

1. Type with accuracy
2. Type letters and memos
3. Demonstrate competency in listening skills and following directions
4. Answer incoming calls
5. Spell, punctuate, and capitalize

6. Proofread
7. Construct correct sentences
8. Recognize and correct improper structure and use of words
9. Demonstrate acceptable vocabulary
10. Follow directions from supervisor

The majority of the respondents indicated that they believed the basic skills—the ability to type with accuracy; the ability to spell, punctuate, capitalize, proofread, construct correct sentences, recognize and correct improper sentences; the ability to use words and to demonstrate acceptable vocabulary should all be learned in school. On the other hand, they recognized that the ability to type letters and memos, to demonstrate competency in listening skills and following directions, to answer incoming calls, and to follow directions from a supervisor may require a combination of in-school and on-the-job training.

Those competencies indicated by *75 through 89 percent* of the Administrative Support Secretaries as being very important are listed below. These include the ability to:

1. Type reports
2. Type from handwritten notes
3. Type from typed copy
4. Type from rough draft
5. Change typewriter ribbons and care for equipment
6. Operate electric typewriter
7. Operate correcting Selectric
8. Prioritize documents and tasks
9. Proofread typed documents
10. Handle confidential information and correspondence
11. Use a filing system
12. Place outgoing calls
13. Place long distance calls
14. Record telephone messages
15. Operate copier
16. Sort and route mail
17. Use dictionary
18. Alphabetize
19. Sequence sentences in paragraph
20. Determine correct paragraphing
21. Meet and greet people

Again, the pattern of responses indicated that the Administrative Support Secretaries believed the basic competencies such as operating an electric typewriter, typing from typed copy, using a dictionary, alphabetizing, sequencing sentences in a paragraph, and determining correct paragraphing should be learned in school. Those competencies that they considered should be learned both in school and on the job were more concerned with the application of basic learnings such as typing reports, using a filing system, placing out going and long distance calls, and meeting and greeting people. The respondents appeared to perceive that competencies which are more specialized or are more closely related to the individuals or work situations should be learned on the job. Examples of the latter group include the ability to type from handwritten notes, ability to operate a copier, ability to prioritize documents and tasks, ability to handle confidential information and correspondence, and the ability to sort and route mail.

Those competencies indicated by *50 through 74 percent* of the Administrative Support Secretaries as being very important are listed below. These include the ability to:

1. Type with speed
2. Type tabulated materials
3. Transcribe machine dictation with speed and accuracy
4. Compose and dictate business letters, memos, and other documents
5. Organize and maintain a retention filing system
6. Organize and maintain a filing system for stored or recorded data
7. Organize a personal filing system

8. Screen principal's calls
9. Operate dictation equipment
10. Sort and route mail
11. Read and interpret business documents
12. Use secretary's manual
13. Use telephone directory
14. Distinguish between homonyms
15. Schedule and screen appointments
16. Arrange reservations for principals
17. Requisition and maintain office supplies

The competencies from the above list identified by the greatest number of Administrative Support Secretaries as those to be learned in school were to type with speed, to type tabulated materials, to use the telephone directory, and to distinguish between homonyms. Those identified to be learned on the job were to screen principal's calls, to sort and route mail, and to requisition and maintain office supplies. All other competencies on the above list were considered by the greatest number of the secretaries to be learned best through a combination of in-school and on-the-job training.

Principals/Originators

Definition as used in survey instrument: The Principal/Originator is a *user* of secretarial support, whether it be of document preparation services (such as in a Word Processing center, mini-station, etc.) and/or administrative support services (personnel involved in non-typing functions primarily).

In some companies this person will be referred to as a "principal," while in other companies they may call this individual an "originator" or "user." Other terms include "authors" or "action officers."

Typical persons classified as principal/originators are accountants, attorneys, physicians, and all levels of managers.

Summary of Most Frequent Responses

The data in Chapter 7 of the original report represent the personal information supplied in the responses from the 286 Principals/Originators and their perceptions relative to the effectiveness of word processing within their organization. Only the most frequently chosen responses for each question are reported here.

1. The region with the largest representation of Principals/Originators in this study was North-Central with 39 percent.

2. Twenty percent of the respondents represented organizations classified as Finance, Insurance, or Real Estate.

3. Correspondence was the word processing document production application most frequently used by Principals/Originators (86 percent).

4. Almost all (97 percent) of the respondents believed there were major benefits in word processing document production in their organizations.

5. The most frequently cited major benefits of word processing document production were greater productivity (76 percent) and a higher quality product (75 percent).

6. Fifty-six percent of the Principals/Originators indicated that there were shortcomings in the word processing document production system in their organizations.

7. The greatest shortcoming in document production identified by those Principals/Originators who indicated the existence of shortcomings was backlog of work (39 percent).

8. Seventy-six percent of the responding Principals/Originators were satisfied with the current level of other (primarily nontyping) secretarial support in their organizations.

9. Of those persons who were not satisfied with the current level of other secretarial support, 62 percent believed improvements could be made by employing more secretarial help for the work load involved.

10. Nearly 58 percent of the Principals/Originators indicated that the work they were presently doing could not be handled by a qualified secretary—it was work the Principals/Originators must do themselves. However, 40 percent said they were presently doing work that a qualified secretary could do for them.

11. Of those respondents who admitted that they were doing work which could be done by a qualified secretary, 40 percent revealed that they would most like a qualified secretary to perform filing and/or records management tasks; 38 percent desired assistance in the area of preparing written communications.

12. Over three-fifths (62 percent) of the Principals/Originators said that their present secretarial personnel had sufficient background or training to perform the additional secretarial activities they might need to delegate.

13. Fifteen percent of the respondents suggested that additional training in grammar, spelling, proofreading, and editing would enable their secretarial staff to provide them with more effective support.

Discussion

The responses of the Principals/Originators in this study are from users of secretarial support which includes document preparation services (such as in a Word Processing center, mini-station, etc.) and/or administrative support services for nontyping functions primarily. These respondents, often defined as middle managers or top managers, are usually not well acquainted with all of the intricacies of word processing, nor should they be. However, they are the office workers in a position to pass judgment on whether the secretarial support system is providing the services needed to process their work.

Word Processing Applications. A large majority (86 percent) of the Principals/Originators in this study said they used word processing document production for correspondence. This use reconfirms a statement made in *Datapro Report* (May, 1980) which indicated that the most prevalent application of word processing continues to be the typing of letters and memos. The *Datapro Report* also suggested that the use of word processing equipment for filling in information on preprinted forms is continuing to increase. This DPE study did not verify this because only 27 percent of the respondents checked this application. This percentage may indicate, however, a greater usage of preprinted forms than would have been found one or two years earlier.

Major Benefits. An extremely large proportion (97 percent) of the Principals/Originators said they believed that there were major benefits in word processing document production in their organizations. This is an encouraging sign showing that perhaps some of the resistance and rigidity to the change in the office structure from a traditional boss-secretary relationship to word processing is easing. An overwhelming percentage of the users of word processing are now admitting that major benefits exist. A *Fortune* magazine survey in 1976 revealed that middle managers tend to have less resistance to changes in office procedures and personnel relationships than do top managers; however, resistance at this level was still evident. As might be expected, and as the study showed, the managers who were not affected were much more willing for changes to take place in the office than were those more directly affected. Perhaps many of these Principals/Originators had not previously had a "private" secretary "to give up," so this might account for a lesser degree of negativism.

Three-fourths of the Principals/Originators in this study indicated that greater productivity was the major benefit of word processing. An almost equal percentage indicated that higher quality work was also a major benefit. Thus, it would appear that these respondents recognize that more work is being produced in their organizations with no decrease in quality and, indeed, even higher quality than was previously produced. These findings may be correlated with a part of the *Fortune* survey in which managers were queried as to whether they thought the costs of the most modern office machines were more than offset by their greater productivity; three-fourths of this study sample agreed with that statement, indicating a recognition that greater productivity was possible.

Shortcomings. A majority (56 percent) of the Principals/Originators indicated that shortcomings existed. When people are asked to identify shortcomings, they can usually do so; yet, 41 percent said no shortcomings were evident. Periodical literature often presents the notion that one of the greatest shortcomings of word processing is that managers dislike giving up the personal contact with their secretaries, which changing to word processing usually requires.

The most often-mentioned shortcoming, however, concerned backlog of work. Though not cited as frequently as backlog of work, lack of personal contact with Operators was cited as a shortcoming by one-third of those who indicated that shortcomings existed. Note should be taken that two-thirds (66 percent) of the Principals/Originators had checked fast turnaround time as one of the major benefits of word processing. These two responses are not necessarily incompatible but possibly highlight the fact that the services provided by word processing in organizations differ considerably. Obviously, some are providing better service than others for a variety of reasons. This study made no attempt to examine this facet.

Other Secretarial Support. About one-fifth of the Principals/Originators indicated some dissatisfaction with the level of secretarial support provided by other secretarial support (meaning nonword processing), which is not a very great percentage. However, when these people were asked what might be done to improve the level of support, 62 percent listed employing more secretarial help for the workload. It is interesting that these respondents may be demonstrating traditional patterns of thinking. They may think the way to solve problems is to hire more people without first examining possibilities of more effective use of supervision, studying the systems, procedures, and work flow, or determining ways in which technology might increase the productivity in the office.

When asked if there was necessary work which the Principals/Originators were doing now which could be done by a qualified secretary, 40 percent said yes. This may be an area often overlooked by office supervisors who fail to explore sufficiently tasks that should be shifted from a Principal/Originator to the secretarial staff. On the other hand, a complaint of secretaries is that many times Principals/Originators do not give them all the work they are capable of doing. The most frequently listed activities that the Principals/Originators thought secretaries could perform that would be of most assistance were filing, records management, and preparing letters, memos, and requisitions. Once again, as with the other groups of office employees surveyed in this study as well as in other studies, when asked what kinds of training would enable the secretarial staff to provide more effective support, the response was most often training in grammar skills.

Top/Middle Management Decision Maker

Definition as used in survey instrument: That individual within the organization who has the authority and responsibility to make the decisions concerning the office administration function affecting secretarial support. This person will normally be well-acquainted with the current status of Word Processing as well as other office systems within the organization, but, more importantly, will probably have some ideas as to the future of Word Processing within his/her organization.

Typical persons who might be classified as the decision-maker might be vice-presidents, division heads, or department managers, depending upon the organizational structure.

Summary of Most Frequent Responses

The data in Chapter 8 of the original report represent the responses of the 292 Top/Middle-Management Decision Makers. Only the most frequently chosen responses for each question will be reviewed here.

1. The region with the largest percentage of respondents was the North-Central region, which represented 41 percent of the organizations.

2. Over one-fifth of the respondents represented the Finance, Insurance, or Real Estate industries (21 percent).

3. A large majority (87 percent) of the respondents expected that the number of employees assigned to word processing in their organizations will increase in the next five to ten years; significant increases (more than 20 percent) are expected by 40 percent of the respondents.

4. Ninety-two percent of the respondents indicated that they expect the number of Principals/Originators using word processing services in their organizations to increase within the

next five to ten years; while 41 percent indicated that they expected a significant increase (more than 20 percent).

5. More than 50 percent of the respondents indicated that they anticipate acquiring more word processing equipment in the next five to ten years.

6. Sixty-six percent of the respondents said they anticipate changes in the organizational structure for processing written and oral communications.

7. Forty-two percent of the respondents indicated that they expect a merging of the fields of word processing and processing; another 14 percent said "possibly;" and 5 percent said the two fields were already merged in their organizations.

8. Eighty percent of the respondents indicated some change is expected in types of oral and/or written communication. Some of the suggested changes included: use of dictating equipment, greater volume, and electronic mail.

9. Seventy-six percent of the respondents expected changes in the selection and training of word processing personnel. Some of these changes include expanding formal in-house training programs, hiring of higher quality trainees, and requiring greater previous experience.

10. Changes in improved career opportunities for word processing employees were anticipated by 76 percent of the respondents. Some of the changes include implementing some type of career ladder plan, making more levels of job classifications, increasing opportunities for advancement, and upgrading of positions and salary.

11. The most frequent responses to an open-end question inviting additional comments were concerned with: the need for improvement in language arts, the need for better-trained individuals, and for office workers to understand and be able to work with a total systems approach.

Discussion

Growth. There should be little doubt that the field of word processing is an expanding one. Responses of the Top/Middle Management Decision Makers certainly reinforce this, with the large numbers of respondents indicating expected growth in both the number of word processing employees and the number of Principals/Originators using word processing services—87 percent and 92 percent, respectively. The reasons for this expected growth are varied. One respondent indicated that "future price reductions due to technology improvements will allow for more pervasive placement of equipment;" another remarked particularly that "the pending shortage of skilled office help will force all organizations to look at word processing as a means to get more benefit from the costs expended in the office."

Equipment Changes. Anticipation of equipment changes indicated that both future acquisitions and intended uses of word processing are more sophisticated and planned to meet a variety of office system needs. Responses concerning the anticipated changes varied considerably—some intended to provide only for typing needs while others were far more extensive. One respondent indicated the intention of "using their word processing equipment for records processing in a highly specialized function requiring strong Sort/Select/Search features coupled with adequate storage and retrieval capacity." Another expressed a "need for combining word processing with math packages so that a greater amount of statistical and report writing could be accomplished as well as a need for more software capable of easy programming for forms design." Still another indicated, "It is no longer possible to view word processing as a distinct typing skills-oriented career area. The automated keyboard is rapidly being used as an information control word station, where we are dealing with input (typing) storage (file management), routing (mail and message), output (printing, phototypset, visual COM, etc.) or duplication and reproduction (laser copiers, offset masters, etc.)."

Organizational Structure. A large number of the respondents (66 percent) seemed to believe that some changes in organizational structure for processing written and oral communications are anticipated; but they were not in accord as to the anticipated changes. Some changes will be concerned with the placement of equipment in centers, while others will include expanded use of satellite centers. One respondent indicated that "equipment will be dispersed to where the work is and the work will be moved from step to step in its process and between work stations

by electronic means." Another indicated that "more internal communication will go from one manager's terminal to another instead of taking the extra step to be processed through the center."

Merging of Word Processing and Data Processing. Decision makers did not agree concerning the changes related to the possible merging of word processing and data processing. Less than half (42 percent) indicated that they anticipated the merging; 22 percent indicated that they did not expect it, while 14 percent indicated "Possibly." The contrast in ideas is apparent in the following replies. One respondent indicated that the merger would cause each to lose its historic identity as such. The processing functions involve the total handling and use of information regardless of its form or equipment used. Another did not see the merger happening because "DP deals in highly structured files and WP deals in flexible, unstructured files; except for occasional information exchanges the two worlds need not be merged."

Types of Communications. Most respondents (81 percent) indicated that they anticipated changes in the types of oral and/or written communication processed. Some of the changes will be in quantity as 12 percent indicated more volume; a considerable number indicated more use of dictation equipment (17 percent). Several respondents were concerned with the increased use of electronic mail, but there was not yet general agreement concerning the use of terminals by executives.

Selection and Training. The majority of the decision makers (76 percent) anticipated changes in the selection and training of word processing personnel. Some indicated that, as more trained personnel become available, they expect to tighten their hiring practices; others indicated that they expect to do more in-house training.

Both education and business face training problems.

> "training becomes increasingly difficult as we add more complex concepts... most organizations do not yet seem to be taking advantage of the equipment capabilities which are currently available. The most advanced word processing equipment currently on the market requires the same type of systems analysis and design that computerized systems do. Most word processing organizations currently do not have the trained personnel to do this effectively."

Career Paths. Future word processing employees can look forward to changes in the career paths available to them. Most of the responses indicated that change is anticipated (79 percent). Some of the respondents specified that the development of career paths is planned within their organizations; others indicated more levels of job classifications will be developed; while still others mentioned the development of supervisory/management positions and programming or systems analyst positions within word processing. The field of word processing certainly appears to be one of opportunity. New positions with higher levels of responsibility will be developed, but word processing employees must be willing to accept the responsibilities of such positions and train for them, or they will go to others.

General Outlook. Word processing is only the beginning of office automation. One decision maker summarized it well with this additional comment: "Word processing is disorganized and unstructured. I see systems people pulling these diverse factions together to form the nucleus for future office automation. Word processing is only the tip of the iceberg." Another indicated that "word processing is just part of a large revolution in office systems." Yes, the opportunities available through word processing are great. It remains to be seen whether word processing personnel will be ready to progress into them or whether personnel from other fields and with other backgrounds will move into them.

Word Processing Industry Experts

Definition: These persons are considered to be highly knowledgeable about the field of word processing. These industry experts represent word processing consultants, word processing office equipment vendors, and publishers of office/information systems periodicals.

Summary of Responses

The information in Chapter 9 of the original report represents the opinions of well-known word processing industry experts to six open-end questions about the future of word processing and its effect on future employees. Responses are summarized here.

1. All respondents agreed that there will be greater information interaction between word processing and data processing. The respondents were evenly divided, however, in their beliefs concerning the extent or nature of the relationship. Some indicated that the two areas will be indistinguishable and merge into information processing. Others indicated that, although there are similarities in technology, they anticipate continued organizational separation at least for some time.

2. The experts expect the development of more sophisticated word processing hardware and software to continue. Vendors will continue to price and sell the software separately from hardware as a marketing strategy. A major problem for business will be to make use of all the capability available on the equipment.

3. All experts agreed that there are likely to be more hyphenation packages, spelling dictionaries, and grammar and punctuation packages available as software on word processing equipment. Some indicated this software will be developed as a result of the need for better practices in these areas; however, another purpose is to speed productivity. Software will also be developed to solve incompatibility problems between hardware systems.

4. The experts commented on the low skill level of many operators entering the field today, but they seemed to believe that higher level skills will be required. Not only will word processing operators need to be able to spell and punctuate, they will also need to be able to use the equipment effectively and to perform as information management specialists. Managers and professionals will operate easy-to-use systems directly and also will need administrative assistants to provide a higher level of service than the present typist or secretary is providing.

5. The experts agree that the 1980 objectives and goals of word processing will be revised in 1985. Some likely changes include: Emphasis will be increasingly placed on effectiveness rather than efficiency. Executive and professional productivity gains will be sought as well as increased clerical and secretarial productivity. Word processing will make a transition from a document production tool to a management tool, and people will become more comfortable with the use of high technology equipment. Word processing and data processing will be coming closer together.

6. Much more sophisticated technology is either already available or is expected to be readily available in a few years. However, the future will be determined less by the availability of new technology than by people, their willingness to change, and their ability to understand and use the technology in an efficient and productive way.

Discussion

Attempts to determine the future are difficult because such diverse variables as economic conditions and even international affairs affect people's attitudes, technological development, manufacturing processes, and their acceptance of change. However, experts in the forefront of the word processing industry are in a position to gain a broad perspective and the responses they have provided are helpful. Their opinions when viewed with those reflected in current periodical literature probably provide the best possible basis available for forecasting the future.

Word Processing/Data Processing

No one can forecast the exact relationship between word processing and data processing in offices with a total information system in the office. In fact, this relationship is almost certain to vary from one office to another or from one firm to another. One thing is certain, however; the two will be more closely related in the future. The experts taking part in the Delta Pi Epsilon study all agreed that there will be greater information interaction.

Many experts concur with the future interaction of information. The May/June 1980 issue of *Corporate Systems* includes an article, "Word Processing: Predicting the Future," which quotes many major officials of vendor companies. The theme is evident—the integration of office technologies into a multifunctional workstation will accelerate considerably in the next few

years. William E. DeGenaro, Strategic Planning Manager of 3M's Business Products Group, declares, "By 1985 there will be little or no distinction between DP and WP. The merging of the two capabilities that began in the seventies will become commonplace in the eighties." (Tunison, 1980:9)

Word Processing Growth

The accelerated growth of the word processing industry has resulted from a number of factors. The driving force of technology, both in hardware and software, has been enormously impressive, and the experts participating in this study indicated they expect this accelerated pace in the development of both hardware and software to continue. More than just these changes have occurred. Dr. Gordon Baty, Division Manager, Burroughs OCR Systems, states in a *Corporate Systems* article,

> "The most significant changes have occurred on the human side of the equation. Word processing is beginning to be viewed as a tool—not as a panacea to all office problems... Training, organization, career paths, and incentives are increasingly being recognized as the real keys to a successful WP environment... Managers are increasingly coming to understand that more hardware at lower prices is not the whole answer. Only to the extent that we can invent ways to train, motivate and retain our pool of skilled operators can the exponential growth of the WP industry be sustained." (Tunison, 1980:8)

Recent estimates by the International Data Corporation, in the September 22, 1980, *Fortune* supplement, ("Productivity..." 1980:48) indicate that by 1985 the installed base of WP keyboards will expand fivefold to 2.3 million, and another 2.5 million low-end electronic typewriters will be installed. If this type of growth is to be achieved, tremendous pressures will be placed on educators to train operators and users not only to accept change but also to grow and develop in order to expedite change.

Richard Eichhorn, Vice President of Corporate Development, CPT Corp., feels that the need for trained people will present business with a problem. "Our industry is likely to grow by 35 percent a year," he noted, but the limiting factor will be the lack of qualified people—on both the user and vendor sides—to implement these advanced office systems... Users will have to grow a new breed of administrative manager who will not only know hardware and interfacing procedures, but who will also understand the psychological, motivational, and physiological aspects involved in implementing advanced word processing systems." (Tunison, 1980:11)

Robert A. Shiff in the July, 1980, issue of *Impact* suggests that

> "First of all, we should drop the term 'operator.' Advanced office equipment is too sophisticated to be left to a so-called operator. The good ones are 'designers'—they no longer merely operate the equipment; they assist in developing programs and formats to exploit equipment features through new or revised applications. They start doing more systems analysis than operation. They recognize the need and importance of 'what if?' If these people have no concept of what the total system is, or how the information is going to be used, they have no opportunity to raise questions or use their own abilities. The result is often that sophisticated technology is being applied to routine operations where less expensive equipment could do the same thing better, faster, and cheaper." (Shiff, 1980:4)

Employee Requirements

Another aspect of the information processing requirements of the future is related to secretaries. The requirements are shifting because of the current shortage of trained personnel as well as their impact upon improving managerial productivity. This will be discussed in a later section of this chapter.

Several problems are associated with attempts to attract office workers with needed higher skills. A shortage is developing in white-collar workers, especially those with proper training.

The number of people (in the 18-24 age bracket) available for entry-level jobs will drop by 20 percent within the 1980s. Many young people are also being attracted into other fields, and the enrollments in office education are not expanding to meet impending labor needs. At the same time, the average scores on SAT tests show achievement level has dropped. (Dykeman, 1980:8)

Role of Education

The characteristics of word processing indicate that the educational segment of our economy must come to grips with the needs of business and tomorrow's office workers. More software such as hyphenation packages and spelling dictionaries will be developed to assist operators, but the schools must do more to develop the basic skills of students as well as to provide a background of understanding about information, total systems, and better ways of achieving goals. Rather than consider commercial software as threatening, educators should welcome technology. Several recent articles in both *Business Week* and the *Fortune* supplement have discussed the advent of videodiscs as important new tools for the improvement of training. Educators should give consideration to the implications of this technological innovation as an ally in the educational process.

Productivity

Some experts say that because our nation is heavily involved with an economy based on information and service, productivity has declined. Today's management is investing substantially in "office environments and technology" that will enable the managers as well as support personnel to function at optimum creative capacity. White-collar productivity seems to be everyone's concern. "If corporate management does not learn to deal with these technological changes, they will miss the golden growth opportunities of the 1980s and seriously jeopardize the solvency of their respective companies," declared James J. Crenner, Chairman, Dun & Bradstreet. (Crenner, 1980:15)

Most current business publications contain at least one article which discusses the productivity problem. During the last ten years, the rate of increase in productivity within the private sector has fallen dramatically to 1.8 percent per year. The rate had been 3.2 percent per year for the twenty-year period following World War II. In addition, figures released for 1979 show that for the first time since 1974, productivity declined for a full year—down .9 percent from 1978. It is likely that higher productivity is going to be an urgent priority in the decade ahead.

Emphasis on increased clerical productivity characterized the early days of word processing and other office systems. A new analysis of productivity is evident throughout the office systems industry and in a variety of materials in current office systems periodicals. Robert Mariana, vice president of Sony Office Products, states, "In 1985, the diverse applications of word processing capabilities will also be available to managers and executives, allowing them to perform their work more efficiently. Ultimately, the productivity payoff will be much greater." (Tunison, 1980:11)

As Ray L. Ash, Chairman of AM International, says, "The real payout of enhanced productivity in the office lies in the improved ability of management to make more timely and better decisions. The clerical function after all just serves to support the decision-making process." (*Fortune* Supplement 1980:46). As early as 1985 office automation is estimated to save an average of 15 percent of a manager's time. "In terms of dollars," notes Booz, Allen & Hamilton's senior vice president Harvey Poppel, "the annual opportunity value of this time savings is equivalent to 15 percent or more operating income before taxes for the average large company. By 1990, the time saved by knowledge workers could amount to $300 billion." (*Fortune* Supplement, 1980:46) This view is also supported by Charles Cumpston in a January, 1980, editorial in *Word Processing Systems* where he discusses equipment of the future and states "....more complex machines have allowed easier interface with operators. This trend will continue, and the next ten years should see people at all levels of the organization starting out using keyboards and displays the way they use telephones today—as sources for many different kinds of information needs." (Cumpston, 1980:60).

Several related developments will enhance the opportunities for increased managerial productivity and better decision making. Melody Johnson, then senior consultant at Quantum

Science Corp., a market and information research consulting firm, suggested, "There is evolving a higher level of secretarial role...a managerial secretary. This person can be trained to take over the type of functions that a manager can delegate out." ("What Does the Coming Decade Hold for WP?":15) These secretaries will be of a paraprofessional nature, truly assisting the manager. To function at the managerial level, they will need a broad educational background.

Amy Wohl points out that another development offering fertile new ground for improvement of productivity is the management work station. She says,

> "This is an area that has the potential to be even more important than word processing in changing the way that people work in offices—and allowing them to perform their business functions more effectively. Also, by doing the repetitive and mechanical parts of employees' jobs, the employee is left with the most meaningful, most interesting part of the job... When the automated office really comes (and it is sure to do just that), it has the potential to change our entire way of doing business." (Wohl, 1980:176)

General Outlook. Alvin Toffler, in his recent book *Third Wave*, suggests that all the old hierarchies and structures of the office are soon to be reshuffled. In his words,

> "The combination of rising costs and stagnating productivity on one hand and computer advances on the other make an irresistible combination. The result is likely to be nothing less than a 'wordquake'... The coming wordquake means more than just new machines. It promises to restructure all the human relationships and roles in the office as well." (1980:204)

He further suggests that the enhanced communications capabilities now becoming available will lead to increased numbers of office workers who will perform their work at home—in the electronic cottage. (1980:207)

Change has already been coming to the office at a rapid rate. The panel of experts and those quoted in the current periodical literature have painted a picture of significant, even unbelievable, changes yet to come in the office. Word processing, which began as a secretarial tool, is serving as a springboard and is an inherent part of the changing office.

Educators must recognize the role of word processing today and in the continuing evolution in the office. Most importantly of all, educators must take the responsibility to teach their students about word processing and its role in the changing office.

Chapter 3
Summary, Conclusions and Recommendations

Summary

Business organizations are experiencing a phenomenal increase in the amount of paperwork necessary for conducting their operations. In an effort to handle the paperwork explosion, a concept called "word processing" has been developing. This concept provides one office systems approach that may alleviate the tremendous paper bombardment. The problem of this study was to determine current practices in word processing installations which are located in selected organizations throughout the United States. A related problem was to ascertain anticipated future developments in word processing as well as to provide recommendations for those educational institutions that prepare workers for the business office.

Six interview instruments were constructed to solicit word processing information from six different practitioner groups employed by organizations which had implemented word processing. The groups interviewed were word processing supervisors/managers, word processing operators/correspondence secretaries, administrative support supervisors/managers, administrative support secretaries, principals/originators, and top/middle management decision makers. In addition, a questionnaire was submitted to a group of industry experts (consultants, editors, and vendors) for their write-in responses about the future.

The questions on the survey instruments were based on a review of professional literature and validated by a group of 25 members of the International Word Processing Association who worked for organizations with word processing installations. Each of the survey instruments was designed to elicit pertinent data that members of the various groups could be expected to supply most accurately and adequately, based upon the usual job responsibilities and the authority of their positions. Table 218 shows the kinds of topical data collected from each of the seven groups.

These interview instruments with accompanying interview guidelines were distributed to the Delta Pi Epsilon chapters that had agreed to provide members willing to visit selected firms in their geographic area. Over 90 percent of the Delta Pi Epsilon chapters made this commitment. A listing of the firms to be visited was also furnished to each chapter. This listing was compiled from a sample drawn from the membership list of the International Word Processing Association and represented business organizations which had agreed to participate in this study.

An analysis of respondents indicated that, while most of the nation was well represented, there were geographical areas that appeared to be under-represented. Several additional regional professional word processing associations were contacted to solicit their help in building a more representative sample of the population. In addition, other organizations with word processing centers were interviewed, although they were not part of the random sample process. Chi-square tests indicated no significant differences between the responses of the randomly selected group and the additional groups when responses were compared on the basis of geographical region, nature of organization, and number of office employees. The interviews were conducted between April and August, 1979. A total of 341 organizations were surveyed with 336 usable responses.

Table 218
Summary of Kinds of Data Collected
From Each of the Seven Interview Instruments

General Topic	WP Supr/Mgr	WP Oper/CS	AS Supr/Mgr	AS Secry	Principal/ Originator	Top/Middle Management Decision Maker	Industry Experts
Name of Organization	X	X	X	X	X	X	
Regional Location	X	X	X	X	X	X	
Nature of Organization	X	X	X	X	X	X	
Number of Office Employees	X	X	X	X			
Sex of Respondent	X	X	X	X			
Age of Respondent	X	X	X	X			
Previous Office Experience	X	X	X	X			
Job Title	X	X	X	X			
Length of Time in Position	X	X	X	X			
Educational Background	X	X	X	X			
Organizational Pattern	X		X				
Organizational Structure	X		X				
Organizational Framework	X		X				
General Areas of WP/AS Responsibility	X		X				
Back-Up Responsibilities	X		X				
Number of Principals Using WP/AS Services	X		X	X			
Types of Secretaries Employed	X						
Number of WP/AS Employees by Level and Sex	X		X				
Relationship to Principals	X		X				
Kinds of Typing Jobs Processed	X						
Kinds of Input	X						
Number of Employees Supervised	X		X				
General Job Responsibilities and Duties	X	X	X	X			
Time Spent on Responsibilities	X	X	X	X			
Operation of WP Equipment	X						
Training for Position	X		X	X			
On-Going Training Needs	X		X	X			
Career Path	X	X	X	X			
Job Titles of Workers	X		X				
Initial Training of Workers	X	X	X	X			
In-Service Training of Workers	X	X	X	X			
Employment Testing	X		X				
Employee Recruitment	X		X				
Work Measurement	X		X				
Editing and Proofreading Policy	X						
Needed Training on Equipment	X						
Length of Learning Curve	X						
Major Weaknesses of Workers	X	X	X	X			
Selection of Equipment	X						
Additional Training Suggestions	X		X		X		
Likes and Dislikes of Employment		X		X			
Competencies Needed by Entry-Level Workers		X		X			

Table 218 *(continued)*

General Topic	WP Supr/Mgr	WP Oper/CS	AS Supr/Mgr	AS Secry	Principal/ Originator	Top/Middle Management Decision Maker	Industry Experts
Applications of WP					X		
Benefits of WP					X		
Shortcomings of WP					X		
Adequacy of Current Secretarial Support					X		
Anticipated Changes in WP						X	
Changes in WP/DP Relationship							X
Future Office Systems Emphasis							X
Kinds of Software in Future							X
Skills Needed in Future							X
Changing WP Objectives							X
Technological Time Frame							X

Conclusions

Several conclusions can be drawn from the findings of this study:

1. Employment opportunities for word processing personnel will continue to grow in the next five to ten years.

2. Principals/Originators overwhelmingly endorse the benefits of word processing in their organizations because of greater productivity and a high-quality product. Most of the principals/originators are also satisfied with the level of administrative support currently provided.

3. Word Processing Operators/Correspondence Secretaries are expected to provide "back-up" administrative support in organizations when needed.

4. The following job responsibilities and duties are performed most often (70 percent or more of the time) by Word Processing Operators/Correspondence Secretaries: typing letters, memos, and reports ten or fewer pages in length; typing original one-time correspondence; typing from handwritten input; typing documents requiring light revisions; proofreading typed documents; organizing and maintaining a filing system for stored or recorded data; logging work in and out; taking general care of office equipment; operating dictation equipment; using the dictionary and word processing manuals; and following the directions of supervisors. Considerably more of the working time of Word Processing Operators/Correspondence Secretaries is spent on activities associated with typing and transcription than on tasks involving other functional office areas.

5. The following job responsibilities and duties are performed most often by Administrative Support Secretaries: composing written communications from oral directions; answering routine correspondence without directions; composing from employer's longhand notes; typing tables, speeches, reports, and news releases; answering the telephone; organizing flow of incoming mail; meeting callers; making appointments for employer; scheduling conferences and meetings; maintaining general and desk reference files; making recommendations concerning office systems, procedures, and supplies; and using a copy machine. More of the working time of Administrative Support Secretaries is spent in the area of written communications than in other areas.

6. Neither public nor private schools are important sources for obtaining Word Processing Operators/Correspondence Secretaries and for word processing equipment training. Training on magnetic media is conducted primarily by vendors or provided by the employing organization on the job. However, public and private high schools are the predominant source for the initial, basic office training of Administrative Support Secretaries. Little initial training for these employees is received at the postsecondary level.

7. The following appear to be the major competencies required by entry-level Word Processing Operators/Correspondence Secretaries and Administrative Support Secretaries: typing

with accuracy from typed copy, from handwritten copy, and from rough draft within a satisfactory length of time; correctly applying grammatical and transcription rules in typing letters, memos, and other kinds of typing of varying lengths; following directions; and listening. Additional major competencies required by Administrative Support Secretaries are the ability to use a filing system, the ability to answer incoming telephone calls, and meeting and greeting people.

8. Schools should be primarily responsible for teaching the following major competencies needed by entry-level Word Processing Operators/Correspondence Secretaries and Administrative Support Secretaries: grammar and transcription skills (spelling, punctuation, capitalization, sentence structure, vocabulary, proofreading); typing with speed and accuracy; listening and following directions; operating dictation equipment; operating adding machines; reading and interpreting documents; using reference manuals; using a filing system; scheduling and screening appointments; organizing and maintaining a retention filing system; answering telephone calls; and arranging reservations.

9. The most important employment factors in hiring Word Processing Operators/Correspondence Secretaries and Administrative Support Secretaries are the type of previous work experience and the impression made by the applicant in the application process. Grades in school (both overall and English/office education) are not considered to be an important employment factor in hiring for these positions. Public and private educational institutions are not a major recruiting source for Word Processing Operators/Correspondence Secretaries or Administrative Support Secretaries. Direct application ("walk-in") or transfers within the organization are sources most frequently used.

10. Organizations administer employment tests to potential secretarial employees. A straight-copy timed typewriting test is the employment test most often administered to potential Word Processing Operators/Correspondence Secretaries and Administrative Support Secretaries. Language arts tests are more frequently given to Word Processing Operators/Correspondence Secretaries than to Administrative Support Secretaries.

11. Newly employed Word Processing Operators/Correspondence Secretaries receive more in-service training than do newly employed Administrative Support Secretaries. This training usually involves learning to operate magnetic word processing equipment.

12. Training on an electric typewriter continues to be an important element in the preparation of Word Processing Operators/Correspondence Secretaries and Administrative Support Secretaries; however, training on magnetic word processing equipment is suggested in the programs of future Word Processing Operators/Correspondence Secretaries. Three or more months of training on magnetic word processing equipment is the average length of the learning curve for a newly employed Word Processing Operator/Correspondence Secretary who can accurately type 40 to 50 words a minute.

13. Administrative Support Secretaries may be required to possess shorthand skills in specific organizations; however, the general trend appears to indicate a reduced need for such skill in organizations which have implemented word processing installations.

14. The greatest job-related shortcoming of Word Processing Operators/Correspondence Secretaries and Administrative Support Secretaries is clearly a fundamental weakness in the use of English.

15. The job responsibilities of the Word Processing Supervisors/Managers and the Administrative Support Supervisors/Managers can be categorized under the usual functions of a manager: planning, organizing, controlling, and directing and coordinating. Both Word Processing and Administrative Support Supervisors/Managers spend more of their working time in directing and coordinating activities than on any other single management function.

16. Word Processing Supervisors/Managers operate word processing equipment in addition to performing their supervisory responsibilities. Word Processing Supervisors/Managers are also actively involved in making recommendations to upper management concerning the acquisition of word processing equipment within the organization. Administrative Support Supervisors/Managers also perform secretarial tasks for one or more principals part of the time in addition to performing their own supervisory responsibilities.

17. The span of control and supervision for both Word Processing and Administrative Support Supervisors/Managers is usually fewer than ten employees.

18. Word Processing Supervisors/Managers and Administrative Support Supervisors/Managers recognize a need for continuous training for themselves; and they suggest that their greatest need concerns methods and techniques of supervising people. Supervisory management training for word processing personnel, when provided, is usually informal and consists of workshops and seminars, training conducted by vendors, or that provided within in-house management training program(s).

19. The most predominant organizational pattern for word processing continues to be centralized; the most prevailing organizational pattern for administrative support is decentralized.

20. Word processing centers follow the plan of providing services to any principal(s) requiring word processing services (generally following a "first-come, first-served" policy), while administrative support is more likely to be organized to serve selected principals on an assigned basis (permanent or semi-permanent).

21. A word processing-related position is not the first office job for Word Processing or Administrative Support Supervisors/Managers nor for Word Processing Operators/Correspondence Secretaries and Administrative Support Secretaries. Most of these employees have had previous office experience in a secretarial/clerical position; the Word Processing and Administrative Support Supervisors/Managers have had considerably more supervisory experience than have the Word Processing Operators/Correspondence Secretaries or the Administrative Support Secretaries.

22. A limited number of career paths exist for Word Processing Operators/Correspondence Secretaries and Administrative Support Secretaries. Evidence indicates that more opportunities for career advancement, though still quite restricted, are available to Word Processing Operators/Correspondence Secretaries than to Administrative Support Secretaries. Limited career paths also exist for Word Processing Supervisors/Managers and Administrative Support Supervisors/Managers, but there appears to be greater opportunity for a "built-in" career progression for Word Processing Supervisors/Managers than for Administrative Support Supervisors/Managers.

23. Work measurement systems are used in word processing installations, but are seldom used in the administrative support area.

24. More software training programs will be available for word processing equipment; many of these programs will be related to the development of grammar and transcription skills.

25. Direct keying on electronic equipment will become a necessary skill for all office personnel at all levels in the organization—not just the secretarial staff.

26. Predictions are that the responsibilities of secretaries in the future will probably be expanded and/or changed. One expected change is the development of information management specialists.

27. The findings in this study suggest that there will be greater interaction between word and data processing within the next five to ten years.

28. Opinions of experts participating in this study imply that by 1985 a stronger emphasis will be placed on the concept of effectiveness rather than efficiency. Executive and professional productivity gains will be sought along with increased secretarial and clerical productivity. Office personnel generally will feel more comfortable in using technology to increase their job effectiveness.

Recommendations

The information obtained from this study, perusal of the literature, comparison of related research, and analysis of data suggest the following recommendations:

1. Business education departments should emphasize the following in their curricula in order to prepare students better for entry-level jobs in word processing: typewriting with accuracy (at least 50 wpm), using transcription equipment, using English correctly, listening and following directions, utilizing manuals, setting priorities, and working as part of a team.

2. Business education departments should emphasize the following in typewriting courses: formatting and document requirements; longer typing jobs with the use of a team approach on some of these jobs; simple and complex statistical typewriting; proofreading of typewritten work, letters, memos, and reports and typewriting from handwritten input of varying styles.

3. Because many of the organizations are using some form of work measurement, students should be exposed to various work measurement practices and types of employee evaluations used in business.

4. Because word processing is expected to continue to grow rapidly, business departments should have as their goal the incorporation of vocabulary, organization, and competencies necessary for office workers to be successful in entry-level word processing positions—either as word processing operators or as administrative support secretaries. Since entry-level tests are similar for both positions, schools can achieve their goals through a balanced secretarial program with secretarial procedures, magnetic keyboarding, machine transcription, and shorthand. Shorthand may be particularly helpful for beginning employees in administrative support secretarial positions.

5. Business departments need to stress English skills to a much greater extent. At the same time, however, these fundamental weaknesses should be brought to the attention of the English departments and central administrators in order to determine what can be done in English courses and other courses to help more students develop greater facility in English usage.

6. Programs preparing persons for office positions should include a strong focus on the relationship between data processing and word processing. At a minimum level, this should include an overview of the two types of information systems, their similarities, their differences, and how they may interface operationally in the modern office.

7. Office workers, especially word processing employees, should be provided a strong background in data processing because of the increased interaction between word processing and data processing.

8. Many of the needed competencies should be learned on the job or on the job *and* in school. Therefore, educational institutions involved in the preparation of office workers should work cooperatively with organizations hiring word processing employees to see whether the schools' programs can be integrated with the needs of word processing installations in the area. This involves determining the job requirements, adapting the curriculum, and helping place students in jobs. Serious efforts should be made by both groups to develop internship programs and cooperative educational programs.

9. Educational institutions preparing office workers should maintain close contact with word processing installations to determine changes taking place in career paths for word processing employees. While half of the organizations in this study do not have career paths at this time, many of the decision makers indicated they expect changes in career paths in their organizations. Since turnover is a problem in word processing installations as it is in office jobs in general, the career paths are likely to become more prevalent and definite, providing greater incentives for word processing employees.

10. Post secondary educational institutions should provide training in supervision for office workers. In addition, they should offer assistance to organizations with their in-house training programs for word processing operators, administrative support secretaries, and supervisory personnel.

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